EXHIBIT M

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2020 and to Partially Reset the Annual Cost of Capital Adjustment Mechanism.	A.19-04-014 (Filed April 22, 2019)
And Related Matters	A.19-04-015, A.19-04-017, A.19-04-018 (Filed April 22, 2019)

OPENING BRIEF OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M)

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**OPENING BRIEF OF
SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M)**

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

Pursuant to the September 13, 2019 email ruling of Administrative Law Judge ("ALJ") Brian Stevens and Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (the "Commission" or "CPUC"), San Diego Gas & Electric Company ("SDG&E") submits this Opening Brief in support of its Test Year ("TY") 2020 cost of capital application ("Application").

In the Application, SDG&E requests Commission authorization of an overall rate of return ("ROR") of 8.95% for TY 2020. This is based upon a proposed return on common equity ("ROE") of 12.38%, a proposed cost of long-term debt of 4.59%, and a proposed capital structure of 44% long-term debt and 56% common equity.

SDG&E's Proposed TY 2020 COC Structure

Component	Capital Ratio	Cost	Weighted Cost
Long-Term Debt	44%	4.59%	2.02%
Preferred Stock	0%	0%	0%
Common Equity	56.00%	12.38%	6.93%
Rate of Return (ROR)			**8.95%**

If adopted, SDG&E's requested adjustments will increase the Company's current ROR by 1.40% (*i.e.*, 140 basis points). In addition, SDG&E proposes to modify the existing cost of capital mechanism ("CCM") to narrow the dead band trigger to 50 basis points and identifies additional necessary clarifications to the CCM.

Both Supreme Court precedent and basic principles of finance specify that the greater the risk, the greater the return that is required to attract investment. In other words, a utility with above average risk requires a higher ROE than one with average or below-average risk. In the Commission's 2012 cost of capital decision, with SDG&E possessing an 'A' credit rating from Standard & Poor's ("S&P"), SDG&E's ROE was set around the national average for that year. Seven years later, SDG&E no longer possesses an 'A' credit rating. The risks identified in that 2012 decision have only increased. Today, SDG&E faces heightened risks associated with California's aggressive policy mandates coupled with a seismic shift in the existing utility model due to increasing levels of load departure.

And those increased risks have been joined by the recently exacerbated threat posed by California's unique catastrophic wildfire liability regime. Three factors contribute to this extraordinary risk for California's electric utilities:

- California's higher risk of wildfires in highly populated, property dense areas compared to other states;
- Inverse condemnation, which makes California utilities strictly liable for any wildfire damages linked to a utility's equipment, regardless of fault; and
- A lack of assurance of wildfire cost recovery, in contrast to that other jurisdictions, such as the Federal Energy Regulatory Commission ("FERC"), where cost recovery for the same wildfire events is more reasonably expected.

Although inverse condemnation has applied to California utilities for decades, stakeholders' perception of the risk from the State's wildfire liability regime was greatly heightened by two recent events:

- The size and severity of the 2017-2018 fires in California; and
- The Commission's 2017 decision denying any recovery in SDG&E's Wildfire Expense Management Account ("WEMA") application proceeding regarding the costs and liabilities associated with the 2007 wildfires in Southern California, despite FERC providing for full recovery for those same fires.

These recent events have led to multiple credit rating downgrades for SDG&E (at least two notches by each credit rating agency) – even though SDG&E has been universally lauded for its operational management and wildfire mitigation programs and has not been subject to any significant wildfire liability since 2007. Yet as credit agencies have made clear, SDG&E's operational excellence is outweighed by the State's regulatory environment.

Assembly Bill ("AB") 1054, signed into law in July 2019, made significant improvements to the wildfire liability and cost recovery regime applicable to electric utilities in California. Foremost among these improvements is the creation of a wildfire fund to provide a source of funds for utilities to pay wildfire damage claims. Utilities must, however, reimburse the fund if the Commission determines that the utility acted unreasonably or imprudently. Presently, it is unclear how the Commission will apply the revised prudence standard in Public Utilities Code Section 451.1. Moreover, significant uncertainty exists with respect to the durability of the Wildfire Fund. And the Bill does nothing to address inverse condemnation. Finally, although AB 1054 enhances the wildfire mitigation and prevention requirements applicable to utilities, with the aim of reducing catastrophic wildfires, much work remains to be done by electric utilities and other stakeholders (*e.g.*, forest management agencies, property owners, local governments) to reduce the risk of catastrophic wildfires.

As a result, while credit rating agencies removed their negative outlooks for SDG&E following AB 1054's passage, they did not restore the Company's prior credit ratings. Moody's instead sees four ongoing credit challenges:

- The "[e]levated political risk and public scrutiny in California;"
- "Regulatory uncertainty with delayed rate case and pending cost of capital proceeding;"
- "Execution risk in the CPUC's implementation of the new prudency standards;" and
- "Demanding public policy goals and moderate carbon transition risk."[1]

SDG&E's application reflects those risks. SDG&E's proposed capital structure mirrors the Company's actual capital structure for the last five years, and prudently lowers financial risks in light of SDG&E's increased business risk. SDG&E's requested ROE of 12.38% is based upon quantitative analyses performed by Dr. Roger Morin and John Reed and Jim Coyne for Concentric Energy Advisors ("Reed" or "Coyne" or collectively, "Concentric"), as well as qualitative and policy assessments by SDG&E witnesses Bruce Folkmann and Don Widjaja.[2]

The proposed ROE will assist SDG&E in regaining its long-held 'A' credit rating – lowering costs for ratepayers – and will help improve investors' perception of California's regulatory environment. Given that SDG&E was granted an around average ROE and a 52% equity ratio in 2012 – while the Company had an 'A' credit rating – SDG&E's request for an above average ROE and 56% common equity ratio is eminently reasonable at present, given the

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1 Moody's Investor Services, Credit Opinion: *San Diego Gas & Electric Company*, *Update Following Outlook Change to Positive* (August 2, 2019) ("Moody's Aug. 2, 2019 Report"), Exh. SDG&E-23-C at 2 ("Failure to successfully implement the provisions of AB 1054 associated with the insurance fund in a consistent and credit supportive manner would likely trigger negative momentum on the rating.").

2 As discussed below, Dr. Morin estimates that his recommendation, if he updated his analysis, would likely slightly decline by 20 basis points because of declining interest rates to 10.7 percent; meaning that SDG&E's overall ROE request would become 12.18 percent.

market evidence of a higher cost of equity, multiple credit rating downgrades and high risks identified by credit rating agencies and other stakeholders. By contrast, a decision that lowers the Company's return or does not accurately reflect the business and financial risks facing the Company relative to allowed ROEs nationwide may put further downward pressure on SDG&E's credit rating and reinforce the perception that investing in a California utility is riskier than investing in utilities in other states.

II. LEGAL STANDARDS AND POLICY CONSIDERATIONS

As a public utility, SDG&E is an investor-owned, private corporation whose assets are employed to provide consumers with products – electric and gas services – that are deemed to be in the public interest.[3] Public utility regulation is a substitute for competition. The goal is to replicate the results that a competitive market would achieve for setting reasonable prices and profits.[4] As the Commission has held, unlike a non-utility company – whose earnings depend on the ability to competitively price its products or services – a utility depends upon a fair return on investment because a utility's prices are set by regulators irrespective of what a buyer is willing to pay.[5]

In permitting the setting of utility rates, the United States Supreme Court has long recognized that the unique status of privately-owned, public utilities entails a balancing of consumers and investors' constitutional interests and necessitates the setting of a rate that

3 *See* Cal. Const. Art. 12, Section ("§") 5; Cal. Pub. Util. Code § 216(b).

4 *See Permian Basin Area Rate Cases*, 390 U.S. 747, 768 (1968) ("Permian Basin Area Rate Cases") ("the Constitution does not forbid the imposition, in appropriate circumstances, of maximum prices upon commercial and other activities.").

5 Decision ("D.") 07-12-049 at 14-15.

ensures the utility a "reasonable rate of return."[6] That is, to provide electricity and natural gas to customers, a combined electric and gas utility needs to invest in infrastructure, such as substations, transformers, meters, power lines and pipelines.

To invest in these 'rate base assets,' a utility raises funds by either issuing debt or selling equity.[7] Both methods have costs. The company pays interest to debt creditors on borrowed funds. Or it pays a portion of its profits or dividends to equity investors, *i.e.*, shareholders. These costs are known as the cost of capital.

The Supreme Court has established constitutional requirements under the Fifth and Fourteenth Amendments for setting a fair rate of return to meet these costs of capital in the *Bluefield*, *Hope*, and *Duquesne* decisions.[8] The *Bluefield* Court held that the rate of return must be "equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties."[9] The *Bluefield* Court further specified that the return should be "reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit, and enable it to raise the money necessary for the proper discharge of its public duties."[10]

Hope reinforces the risk assessment, financial soundness, and capital attraction principles of the *Bluefield* decision:

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital

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6 *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307-312 (1989) ("Duquesne").

7 *Id.*

8 *See* D.18-03-035 at 23-24, Finding of Fact ("FOF") 3.

9 *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 692 (1923).

10 *Id.* at 693.

> costs of the business. These include service on the debt and dividends on the stock . . . . *By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks***.** That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital.[11]

And *Duquesne* reaffirms that a utility cannot be limited to a charge for the use of its property that is so low that it is considered "confiscatory" and an unconstitutional taking.[12]

Accordingly, the Commission must exercise its judgment, in light of the evidence contained in the record of this proceeding, to meet the standard articulated by the United States Supreme Court and authorize a rate of return that is:

- Sufficient to enable SDG&E to maintain its financial integrity;
- Sufficient to maintain SDG&E's creditworthiness;
- Sufficient to allow SDG&E to attract new capital in the financial markets on reasonable terms; and
- Commensurate with the risks facing SDG&E.[13]

The determination of what ROE is necessary to attract investment is determined by investor expectations.[14] Although an energy utility is the exclusive service provider for

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[11] *Federal Power Com. v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944) (emphasis added) (citations omitted).

[12] *See Duquesne* at 307 ("The guiding principle has been that the Constitution protects utilities from being limited to a charge for their property serving the public which is so 'unjust' as to be confiscatory.") (citing *Covington & Lexington Turnpike Road Co. v. Sandford*, 164 U.S. 578, 597 (1896)); *see also Permian Basin Area Rate Cases* at 769 ("the power to regulate is not a power to destroy.") (citations omitted).

[13] *See* D.12-12-034 at 18 ("We attempt to set the ROE at a level commensurate with market returns on investments having corresponding risks, and adequate to enable a utility to attract investors to finance the replacement and expansion of a utility's facilities to fulfill its public utility service obligation."); *accord* D.18-03-035 at 6-7; *see generally Permian Basin Rate Cases*, 488 U.S. at 782 (rate of return should "fully compensate investors for the risks they have assumed.").

[14] California Public Advocates' Office ("PAO")/Rothschild Tr. V.4:637:11-16; Morin/SDG&E Exh. SDG&E-09 at 22 ("stock prices are based on investor expectations.") (citation omitted).

transmission and distribution, it must raise capital in a competitive marketplace.[15] The goal is to encourage private investors to invest private funds into capital projects that benefit the public.[16]

"[I]nvestors price securities on the basis of long-term expectations."[17] "Common stocks are very long-term instruments more akin to long-term bonds than to one-year notes."[18] Under the "most basic financial theory . . . the higher the risk, the higher the expected return."[19] "Risk and uncertainty are the same thing."[20] Uncertainty and/or risk require a higher return to entice investors to forego other investments or to use their capital in other ways.[21]

The Commission has long sought to support strong, investment grade credit ratings – both to ensure the financial soundness of the utility *and* to lower costs to ratepayers.[22] As Dr. Morin emphasized:

> [w]e got to do everything we can to get [SDG&E] back to a single A bond rating because it's costing ratepayers an extra 10 million bucks for every

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15 *See* Morin/SDG&E Exh. SDG&E-04 at 10.

16 D.12-12-034 at 29 ("Our goal . . . continues to be, to provide reasonable confidence in the utilities' financial soundness, to maintain and support investment-grade credit ratings, and provide utilities the ability to raise money necessary for the proper discharge of their public duty.").

17 Morin/SDG&E Exh. SDG&E-04 at 33.

18 Morin/SDG&E Exh. SDG&E-09 at 21; *see also* Stern/SCE Tr. V.1:108:24 – 109:1 ("The issue ultimately, though, is the outlook of investors in the utility, and the time frame that the investors may be considering the risks of the utility may go beyond the immediate period of the ROE assessment.").

19 Morin/SDG&E Exh. SDG&E-04 at 38; Morin/SDG&E Exh. SDG&E-09 at 30.

20 Coyne/Reed/SDG&E Tr. V.4:724:26-27; *accord* Folkmann/SDG&E Exh. SDG&E-07 at 8.

21 Morin/SDG&E Tr. V.2:231:18-20 ("In finance we call this the opportunity cost, the foregone return."). *See also* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 20-21 ("The cost [of equity] is an opportunity cost, as measured against other investments of comparable risk."); Hern/IEI Tr. V.4:585:4-10 (same).

22 D.12-12-034 at 8-9 (credit rating downgrades "result[] in increased financial risks for common equity holders, thereby requiring greater returns on common equity"); *see also id.* at 31 (noting that "A ratings are considered by S&P to be upper medium investment grade level and BBB to be medium investment grade level."); D.03-12-035 at 42 ("the cost of investment grade debt is considerably less . . . the lower cost of a utility's debt translates into lower rates, all else being equal.").

> hundred million dollars of capital raised. And these utilities, they are going to be rais[ing] [] billions of dollars.[23]

By contrast, if ROE is set below the level required by investors, it becomes difficult for a company to access capital. This forces a utility to rely more on debt financing, making the company more financially leveraged and reducing the company's credit rating, increasing costs for ratepayers.[24]

III. RETURN ON EQUITY

To arrive at a "fair ROE," the Commission has "consistently evaluated analytical financial models as a starting point."[25] The Commission then considers "additional risk factors not specifically included in the financial models," principally "financial, business, and regulatory" risks.[26] In "the final analysis," however, it is "the application of informed judgment, not the precision of financial models, which is the key to selecting a specific ROE estimate."[27]

SDG&E's proposed 12.38% ROE reflects SDG&E's high levels of risk compared to peer utilities outside of California.[28] Since the Commission's 2012's Cost of Capital decision, the risks cited in that decision have only increased. And they have been joined by the newly recognized significant threat from California's wildfire liability regime. This has resulted in SDG&E suffering multiple (at least two notches each by S&P, Moody's, and Fitch) credit rating

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[23] Morin/SDG&E Tr. V.2:249:16-22; *accord* Morin/SDG&E Exh. SDG&E-04 at 62 ("single A bond rating generally results in the lowest pre-tax cost of capital for regulated utilities, and therefore the lowest ratepayer burden.").

[24] Morin/SDG&E Exh. SDG&E-04 at 5-7.

[25] D.12-12-034 at 18.

[26] *Id.* 28.

[27] *Id.*

[28] *See* Morin/SDG&E Exh. SDG&E-09 at 4 ("SDG&E is among the riskiest, if not the riskiest, electric utility in the industry at this time.").

downgrades in the last 18 months from its former 'A' rating – despite SDG&E not being responsible for any significant wildfire liability in 2017 and 2018 and being widely recognized for having a premier wildfire mitigation program.

A. California Electric Utilities Face Heightened Risks

As noted, the Commission has long assessed business, financial, and regulatory risks in setting ROE.[29] This is analogous to the considerations that credit rating agencies make in analyzing a company's credit worthiness. There are three primary credit rating agencies that assess SDG&E – Fitch, Moody's, and S&P. Credit rating agencies "represent an independent, third-party opinion that is based on a consistent approach to assessing risk across time, security types, industries, and other considerations that inform investment decisions."[30] Although credit rating agency opinions are primarily aimed at long-term debt holders, "[e]quity investors, *i.e.,* stockholders, also use credit ratings as a risk guide to help them decide the terms on which they will offer their capital to a utility."[31] As Michael Gorman described in testimony on behalf of the Energy Producers and Users Coalition ("EPUC"), Indicated Shippers ("IS"), and The Utility Reform Network ("TURN"), "[o]ne of the most direct pieces of information available to the equity market are the credit analysts' assessment of the credit standing of the utilities."[32] The

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[29] *See* D.12-12-034 at 28.

[30] Concentric/SDG&E Exh. SDGE&-05, Ch. 2 at 6; *accord* Concentric/SDG&E Exh. SDG&E-12, Ch. 2, at 2 ("credit ratings are an independent and reliable measure of a company's risk that are used by investors and other interested parties to assist in assessing risk.").

[31] Concentric/SDG&E Exh. SDG&E-05 at 10.

[32] Gorman/EPUC/IS/TURN Tr. V.3:458:13-16.

Commission has also repeatedly looked to the opinion of credit rating agencies in assessing risk.[33]

Credit rating agencies primarily assess "business" and "financial" risks, which add up to the total credit risk assessment. Financial risk is essentially a quantitative examination of financial ratios and other metrics.[34] Business risks are largely qualitative in nature.[35] "Evaluating business risk for utilities is overwhelmingly a matter of regulatory risk."[36] For Moody's, regulatory risk constitutes over 80% of the business risk component of the analysis and 50% of its entire credit analysis.[37] For S&P, it is 60% of the business risk analysis and approximately 40% of its total credit analysis.[38]

Regulatory risk is not simply an assessment of the likelihood of a particular cost allowance or disallowance. Instead, credit rating agencies and other investors make a big picture assessment of regulatory risk.[39] Risk itself financially impacts shareholders, because, as risks increase, share prices often decrease.[40]

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33 *See, e.g.*, D.12-12-034 at 30; *see also* Conclusion of Law ("COL") 14 ("Company-wide factors such as risks, capital structures, debt costs and credit ratings are considered in arriving at a fair ROE.").

34 Concentric/SDG&E Exh. SDG&E-05, Ch. 2 at 7.

35 *Id.*

36 *Id.* at 9; *see also* Morin/SDG&E Tr. V.2:218:19-21 ("A huge component of business risk, of course, is regulatory risk.").

37 Concentric/SDG&E Exh. SDG&E-05, Ch. 2 at 10.

38 *Id.*

39 *See* Morin/SDG&E Tr. V.2:314:20-27.

40 *See* Stern/SCE Tr. V.2:173:20-24.

1. California's Wildfire Liability Regime Presents California Utilities with Unique Risks

a. The combination of increased wildfire damages, inverse condemnation, and uncertainty and perceived lack of ability for cost recovery led to credit rating downgrades and an increased cost of capital

As Moody's recently described, SDG&E and other California electric utilities face unique threats to their ongoing viability from wildfires and wildfire liability that is not shared by any other utility outside of the state.[41] This exclusive threat results from a combination of three factors that do not apply to utilities outside of California:

- California's higher propensity for fires in highly populated and property-dense areas;
- The application of inverse condemnation, which makes a utility strictly liable for property damages arising from the fire when a utility's equipment is linked to a wildfire, regardless of fault; and
- The uncertainty and perceived inability of utilities to recover wildfire costs in situations where stakeholders believe that other jurisdictions, such as FERC, would allow recovery on the same utility behavior.[42]

Each is discussed in turn.

Wildfire Frequency and Magnitude: Wildfires have grown larger and more damaging in California for multiple reasons, including climate change and population growth in fire prone

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41 *See* S&P Global Ratings, *Ratings Direct, Research Update: San Diego Gas & Electric Co. Downgrade to 'BBB+,' Outlook Remains Negative* (Jan. 21, 2019) ("S&P Report Jan. 21, 2019"), Exh. PAO-03-C at 1 (noting that California faces "unique risks" from inverse condemnation and the inability to directly recover those costs).

42 Moody's Investors Service, *FAQ on the Credit Implications of California's New Wildfire Law* (Aug. 6, 2019) ("Moody's Aug. 6, 2019 Report"), Exh. SDG&E-24-C; *accord* Coyne/Reed/SDG&E Tr. V.4:751 (describing how all three factors contribute to the risk); *see generally* Folkmann/SDG&E Exh. SDG&E-07 (describing Moody's Aug. 6 analysis).

areas.[43] The ten costliest wildfires in the United States have all occurred in California.[44] The top five of those wildfires occurred in 2017 and 2018.[45] As Dr. Richard McCann notes for the Environmental Defense Fund ("EDF"), "[e]ven if [California] had a low fire risk it would have the highest number of properties and risk."[46] Credit rating agencies and others believe that the combination of climate change and population growth mean that the risk of wildfires in California will only continue to increase.[47]

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43 Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2; *see also* S&P Global Ratings, *Credit FAQ: Will California Still Have an Investment-Grade Investor-Owned Electric Utility?* (February 19, 2019) ("S&P Feb. 19, 2019 Report"), Exh. SCE-16 at 8 (noting that, although the topography is different throughout the state and that management of wildfires by a utility can mitigate some of the risks, "given the increasing effects of climate change, S&P Global Ratings assumes that all of California's regulated electric utilities are susceptible to catastrophic wildfire-related risks.").

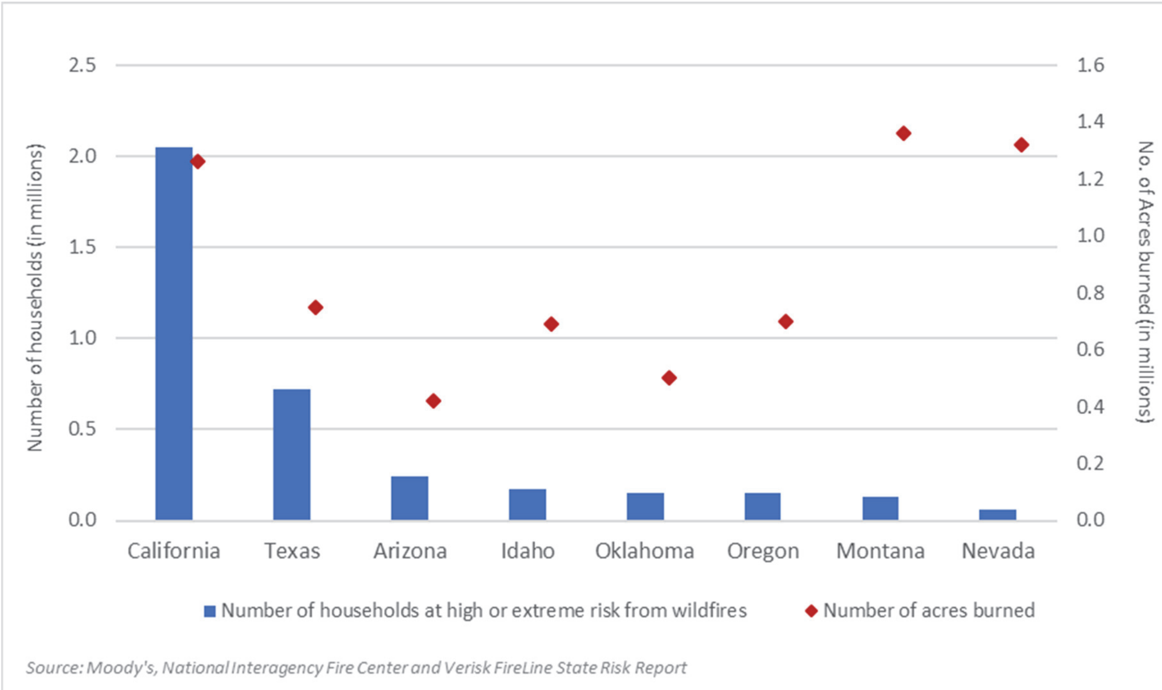
44 Insurance Information Institute, Facts + Statistics: Wildfires, Exh. SCE-14 at 3.

45 *Id.*

46 McCann/EDF Tr. V.6:1021:25-26; *see also id.* at 1021:21 – 1022:4 (noting that California has ten times the number of properties at risk for wildfire damages compared to Oregon).

47 *See* Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 1 ("Wildfires have grown larger and more damaging in California for various reasons, including climate change and population growth in fire-prone areas.").

Table 1: Comparison of Wildfire Size and Property Values Exposed to Wildfires[48]



Inverse Condemnation: As Moody's describes, "under California's inverse condemnation law, utilities are held liable for wildfire damages [that can reach tens of billions of dollars] if their equipment is found to be the source of ignition . . . regardless of fault or the reasonableness of their conduct."[49] As S&P notes, this shifts the burden for wildfire damages from insurance onto California's electric utilities and their ratepayers, "effectively mak[ing] California's utilities the insurer of last resort every time there is a devastating wildfire in their service territory."[50] Yet as S&P adds, an "electric utility is [not] large enough, sufficiently diversified, or adequately capitalized to be a reinsurer."[51]

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[48] Widjaja/SDG&E Exh. SDG&E-03 at 10.

[49] Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2; *See* Kevin O'Donnell/Federal Executive Agencies ("FEA") Tr. V.3:360:11-17 (not aware of inverse condemnation applying in any other state); Gorman/EPUC-IS-TURN Tr. V.3:393:10-13 (same).

[50] S&P Jan. 21, 2019 Report, Exh. PAO-03-C at 3.

[51] S&P Feb. 19, 2019 Report, Exh. SCE-16 at 5.

The upshot is that strict liability means that SDG&E and other California electric utilities will be implicated in more wildfires and be responsible for far more damages than a comparable utility would be outside of California under a negligence standard where a plaintiff has to prove that damages were linked to the utility's negligent conduct.[52] In other words, the likelihood that a California utility will face enormous wildfire liabilities will be much higher given the strict liability standard, meaning that the number of times that a utility has to seek cost recovery in highly publicized proceedings for a larger amount of damages is increased.[53]

Wildfire Cost Recovery: Although inverse condemnation has applied to California public utilities since at least 1999, it was long presumed that the utility could socialize those wildfire costs across all ratepayers.[54] But in the Commission's "first-ever wildfire cost recovery proceeding in 2017," the Commission, in SDG&E's WEMA case, "denied SDG&E's request to recoup wildfire costs that it had incurred in 2007" – even though FERC allowed SDG&E full recovery on FERC-jurisdictional portion of the costs arising out of the same fires.[55]

As SDG&E chief financial officer Mr. Folkmann testified, prior to the WEMA decision, based on Commission precedent, the Company expected that 90 percent of the costs associated

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52 Reed/Coyne/SDG&E Tr. V.4:765:18-19 ("liabilities faced by the utility are greater because of inverse condemnation.").

53 *See* Folkmann/SDG&E Tr. V.5:794.

54 *See Barnham v. S. Cal. Edison Co.*, 74 Cal. App. 4th 744, 752 (1999) ("[t]he fundamental policy underlying the concept of inverse condemnation is to spread among the benefitting community any burden disproportionately borne by a member of that community, to establish a public undertaking for the benefit of all.") (citation omitted); *see also* Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C, at 2 ("In theory, California utilities can pass on their wildfire costs to ratepayers if the [Commission] determines that the utilities had behaved prudently."); Hern/IEI, Tr. V.4:619 (stating that market data demonstrated that the markets expected SDG&E to be found prudent in the Company's 2017 Wildfire Expense Memorandum Account ("WEMA") decision and be able to spread costs among ratepayers).

55 Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2; *see* Stern/SCE Tr. V.1:96:24-27 ("the fundamental question of [SDG&E's] prudence was evaluated in both cases. And different results were found.").

with the 2007 wildfires would be recovered. SDG&E accounted for those expectations accordingly.[56] So the Commission's decision to deny *any* recovery – after FERC allowed recovery – "raised doubts and, in the minds of some, contradicted what was expected."[57] As Moody's states, the WEMA decision threw "into doubt the ability of utilities in the state to recover wildfire costs and raised questions about how incurring such costs would affect" a California utility's financial stability.[58]

The belief that California would make it more difficult, if not impossible, to recover wildfire costs was partly based on at least three significant differences in the prudence review standard applied by FERC compared to the standard applied by the CPUC in WEMA (prior to AB 1054's revisions):

Table 2: FERC v. CPUC Prudency Review Standards

Issue	FERC	CPUC
Burden of Proof	Presumes that the utility was prudent unless a party raises a serious doubt.[59]	Maintains the burden of proof on a utility to demonstrate that it was prudent.[60]
Standard for Prudence	FERC's prudence standard "'permits considerable latitude, in that the Commission, in reviewing a decision . . . does not look for a	Requires that a utility prove that it "exercise[ed] the best practices of the era."[62]

56 Folkmann/SDG&E Tr. V.5:810:7-13.

57 *Id.* at 810:24-26.

58 Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2; Folkmann/SDG&E Tr. V.5:810 (The Commission's decision to deny SDG&E recovery of wildfire costs).

59 *San Diego Gas & Electric Co.*, 146 FERC ¶ 63,017, P 57 (2014) ("The Commission's presumption of prudence is not easily refuted."); *accord Entergy Services, Inc.* ("Entergy Services"), 130 FERC ¶ 61,023, P 52 (2010) ("[t]he utility does not have the burden of demonstrating that expenditures are prudent. Rather a challenger to prudence must create a 'serious doubt' as to the prudence of an expenditure.").

60 D.17-11-033 at 6 and COL 1 ("For costs to be found reasonable, the utility must prove that they were prudently incurred.").

62 D.17-11-033 at COL 1.

	single correct result or require that every possible alternative be evaluated.'"[61]	
Consideration of Inverse Condemnation	Specified that, even if SDG&E's presumption of prudence was not dispositive, the recovery of SDG&E's wildfire costs was valid because SDG&E would likely be held responsible for such costs under inverse condemnation regardless of fault.[63]	Explicitly held that inverse condemnation was "not relevant to a Commission reasonableness review under the prudent manager standard" and that even if SDG&E were strictly liable there is nothing that would supersede the Commission's jurisdiction over cost recovery.[64]

Equally important was investors' uncertainty regarding the *application* of the prudence review – that California would not allow the recovery of wildfire costs on the same set of facts where other jurisdiction such as FERC would – regardless of the legal standard being applied.[65] Again, the cost of equity is determined by investor expectations or uncertain results, regardless of whether those expectations are consistent with the actual results that ultimately transpire. And the surprising nature of the WEMA decision led the market to believe that California would

[61] *SDG&E*, 146 FERC ¶ 63,017, P 56 (quoting *Entergy Services*, 130 FERC ¶ 61,023, P 51).

[63] *SDG&E*, 146 FERC ¶ 63,017, P 60.

[64] D.17-11-033 at 65.

[65] *See* S&P Feb. 19, 2019 Report, Exh. SCE-16 at 5 ("In our view, California's regulatory process to recover these material wildfire costs is still unpredictable, relatively untested, and lacks transparency and [contains] uncertain[t]y regarding the timeliness of cost recovery."); *see also* Coyne/Reed/SDG&E Tr. V.4:748:18-22 ("did you refer to a finding that the company failed to operate according to the standard? Or a finding that the Commission determined so? Because that really is the issue."); Stern/SCE Tr. V.2179:20-25 ("From an investor's perspective, that is an increased risk that isn't necessarily associated with mismanagement. It's associated with a different standard being applied for determining what is prudent and what is not.").

make it more difficult, if not impossible, to recover wildfire costs – the difference between being prudent and being found prudent.[66]

In short, the WEMA decision, combined with the size and frequency of the 2017-2018 wildfires, "amplified in investors' minds the risk that this loss [from wildfires] could be very large and could be entirely thrust on shareholders."[67] As noted, it underscored to stakeholders that California utilities face the unique combination of: (1) a high level of risk for destructive wildfires; (2) the frequency and size of damages that will result from strict liability compared to negligence; and (3) the uncertainty and perceived inability to recover wildfire costs compared to other jurisdictions.[68]

It was this regulatory environment that led credit rating agencies to repeatedly downgrade SDG&E's credit rating (at least two notches by each rating agency) beginning in July 2018.[69] SDG&E had maintained an 'A' credit rating from S&P for 15 years.[70] The Company was not subject to any substantial wildfire liability for 2017 or 2018.[71] Credit rating agencies lauded SDG&E's business operations:

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[66] *See* Folkmann/SDG&E Tr. V.5:826:18-20 ("the facts in the State of California so far have found zero recovery in the case of wildfires"); Hern/IEI, Tr. V.4:619:14-20 (noting that the data demonstrates that the market did not expect SDG&E to be denied any cost recovery and reacted "very negatively.").

[67] Folkmann/SDG&E Tr. V.5:811:3-5; *accord* S&P Feb. 19, 2019 Report, Exh. SCE-16 at 7; *See* Hern/IEI Tr. V.4:587 (financial markets' perception of the risk associated with inverse condemnation increased in 2017, driven in large part by the 2017 WEMA decision).

[68] Reed/Coyne/SDG&E Tr. V.4:751; *see also* S&P Report Jan. 21, 2019, Exh. PAO-03-C at 1 (noting that California faces "unique risks" from inverse condemnation and the inability to directly recover those costs).

[69] Widjaja/SDG&E Exh. SDG&E-03 at 12, Table 1 (detailing credit rating downgrades).

[70] *Id.* at 12.

[71] S&P Feb. 19, 2019 Report, Exh. SCE-16 at 8 ("SDG&E has not been financially responsible for a major devastating wildfire over the past decade.").

- “We assess SDG&E’s operations as better than peers;”[72]
- SDG&E’s “operational management of wildfire mitigation [i]s exceptional;”[73]
- The Company has a “track record of effective wildfire mitigation;”[74] and
- SDG&E has “one of the most sophisticated advanced wildfire warning systems in the world.”[75]

Yet credit rating agencies have found that SDG&E’s business operations are outweighed by the overall regulatory environment. For example, on January 21, 2019, S&P downgraded SDG&E’s overall credit rating to BBB+. In so doing, the rating agency also downgraded SDG&E’s business risk profile from ‘excellent’ to ‘strong.’[76] S&P stated that, despite the Company’s “operational excellence” and “exceptional” management of wildfire mitigation, the rating agency was downgrading SDG&E’s business risk profile because it believed that inverse condemnation, combined with “insufficient regulatory protections to deal with the unique risks of inverse condemnation,” such as not providing a utility a “direct means to collect the wildfire costs from its ratepayers,” was “inconsistent with an excellent business risk profile assessment.”[77]

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72 *See* S&P Global Ratings, *San Diego Gas & Electric Co. Ratings Affirmed, Outlook Revised to Stable from Negative* (July 30, 2019) (“S&P July 30, 2019 Report”), Exh. SDG&E-22-C at 2.

73 S&P Report Jan. 21, 2019, Exh. PAO-03-C at 2; *accord* Moody’s Aug. 2, 2019 Report, Exh. SDG&E-23-C at 1 (noting “SDG&E’s track record of effective wildfire mitigation”); S&P Feb. 19, 2019 Report, Exh. SCE-16 at 8 (“In our view, SDG&E has one of the most sophisticated advanced wildfire warning systems in the world.”).

74 Moody’s Aug. 2, 2019 Report, Exh. SDG&E-23-C at 1.

75 S&P Feb. 19, 2019 Report, Exh. SCE-16 at 8.

76 S&P Jan. 21, 2019 Report, Exh. PAO-03-C at 2.

77 *Id.* at 2-3.

As Dr. Morin notes, it is a rare and unusual event when a utility's business risk profile is downgraded from "excellent."[78] The fact that such a change occurred here through no fault of SDG&E demonstrates that this increased cost of capital is a result of the overall regulatory environment and not specific wildfire events.[79] These credit rating downgrades "directly translate into higher cost of debt and higher cost of equity as a result of the increased perception of default and other risks."[80] The perception of the regulatory environment is also reflected in other market data, such as insurance premiums, where the market is being set more by regulatory risk and less by distinctions such as the strength of SDG&E's wildfire mitigation program.[81]

b. AB 1054 improves but does not fully mitigate the risks of California's unique wildfire liability and cost recovery regime

In response to this deteriorating situation,[82] AB 1054 was passed as an urgency bill and signed into law by Governor Newsom on July 12, making the legislation effective immediately.[83] AB 1054 principally addresses the issue of cost recovery; primarily through creating a wildfire fund and revising the prudency standard to be applied to a utility that possesses a valid safety certification.[84] The wildfire fund is expected to be capitalized with up to $21 million in funds; $10.5 billion from a loan from California's Surplus Money Investment Fund, and $10.5 billion

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78 Morin/SDG&E Tr. V.2:200 – 201.

79 *See* S&P Feb. 19, 2019 Report, Exh. SCE-16 at 8-9 (praising SDG&E's wildfire mitigation programs but nonetheless noting that the rating agency downgraded the Company two notches because they "believe that all California electric utilities are susceptible to potential liabilities from wildfires because of environmental changes and high winds that could spread the fire at a rate that outpaces the capabilities of the first responders.").

80 Hern/IEI Tr. V.4:600:5-8.

81 Coyne/Reed/SDG&E Tr. V.4:719.

82 *See* S&P Feb. 19, 2019 Report, Exh. SCE-16 at 7.

83 *See generally* Folkmann/SDG&E Exh. SDG&E-01-S at 2-4 (discussing the mechanics of AB 1054).

84 *Id.* at 2.

from shareholder contributions from SDG&E, Southern California Edison Company ("SCE"), and Pacific Gas & Electric Company ("PG&E").[85] AB 1054 seeks to extend the wildfire fund's longevity by incentivizing the settlement of wildfire subrogation claims at or below 40 percent of the claimed value.[86]

A participating utility may seek payments from the wildfire fund for settlements and court judgments resulting from a catastrophic wildfire event.[87] But the utility must reimburse the fund for amounts determined to be imprudently incurred by the Commission under the revised prudence standards in Public Utilities Code Section 451.1.[88] The utility's reimbursements to the wildfire fund for imprudently incurred costs are subject to a liability cap. This cap applies only if the utility meets certain requirements, including that it maintains a valid safety certificate.[89] If applicable, the liability cap limits the amount of shareholder exposure for wildfire losses found to be imprudently incurred to 20% of the utility's transmission and distribution equity rate base

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85 *See* Cal. Pub. Util. Code §§ 3288(b) and 3292(b).

86 Cal. Pub. Util. Code § 3292(f)(1); *see* Folkmann/SDG&E Exh. SDG&E-01-S at Appendix E, Moody's Investors Service, *Rating Action: Moody's affirms San Diego Gas & Electric's Ratings; Changes Outlook to Positive from Negative* ("Moody's July 29, 2019 Report") at 1 ("Even though the fund is capitalized with $21 billion of capital . . . it should be able to address over $40 billion of gross claims . . . because utilities are expected to maintain $1 billion of wildfire liability insurance each and the fund is designed to only pay subrogation claims that are settled at 40 cents on the dollar or less."); *see generally id.* at 4 (discussing this provision).

87 Cal. Pub. Util. Code § 3291(c).

88 *Id.* at § 3292.

89 *Id.* at § 3292(h)(3)(B).

for that year on a rolling three-year basis.[90] For SDG&E, this liability cap is estimated to be $825 million based on 2018 rate base.[91]

AB 1054 amends Section 451.1 of the California Public Utilities Code to provide revised standards for the Commission's prudency review so that it more closely tracks the FERC review process above. Among other changes, Section 451.1 provides that the conduct of a utility with a valid safety certification will be deemed reasonable, unless a serious doubt is raised, in which case the utility must dispel that doubt.[92] It also specifies that reasonable conduct "encompasses a spectrum of possible practices, methods, or acts consistent with utility system needs, the interest of the ratepayers, and the requirements of government agencies."[93]

As Mr. Folkmann testified, "SDG&E's position is that AB 1054 is a significant step in the right direction."[94] Credit rating agencies have had similar positive assessments.

- **Fitch**: the "enactment of A.B. 1054 mitigates the regulatory risks associated with the recovery of catastrophic wildfire liabilities for SDG&E;[95]
- **Moody's**: "we believe the [wildfire] insurance fund will be large enough to cover all but the most extreme downside scenarios over the next decade," and "[p]ositive momentum on SDG&E's rating is possible, barring any wildfire in its service territory" if there is a credit supportive

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90 *See generally id.*

91 *See S*empra Energy and SDG&E Securities and Exchange Commission Form 8-K (filed July 12, 2019) ("July 12 Form 8-K"), *available at* http://investor.sempra.com/static-files/50cfab94-4107-4fc2-ba72-425238a8656c.

92 Cal. Pub. Util. Code § 451.1(c).

93 *Id.* at § 451.1(b).

94 Folkmann/SDG&E Tr. V.5:793:20-21.

95 Fitch Ratings, *Fitch Affirms San Diego Gas & Electric's IDR at 'BBB+'; Outlook Revised to Stable* (July 17, 2019) ("Fitch July 17 Report") at 3; *see also* S&P Global Ratings, *Sempra Energy and Subsidiaries Ratings Affirmed; Outlooks Remain Negative* (July 15, 2019) ("S&P July 15, 2019 Report") at 1 ("In our view, over the medium term, AB 1054 could significantly reduce Sempra and its subsidiaries credit risks related to California's wildfires and California courts' interpretation of the legal doctrine of inverse condemnation.").

completion of SDG&E's "pending 2019 general rate case and the cost of capital proceeding;"[96]

- **S&P:** "We believe that the credit-supportive liability cap and the revised standards of a utility's reasonable conduct will offset the rising risks of [SDG&E's] increased susceptibility to catastrophic wildfires due to climate change and California's courts' interpretation of inverse condemnation over the medium term."[97]

Yet although AB 1054 mitigates the risk that a utility will bear enormous wildfire liabilities with no ability to recover them in rates, it does not eliminate that risk.[98] This is reflected in the fact that, although credit rating agencies removed their negative outlook on SDG&E, none of the credit rating agencies increased the Company's already-downgraded ratings to SDG&E's previous 'A' credit status.

TABLE 3: SDG&E Credit Rating Status Post-AB 1054

Agency	**Rating**	**Outlook**	**Revision to Credit Rating**
Moody's	Baa1	Positive	None
S&P	BBB+	Stable	None
Fitch	BBB+	Stable	None

As Mr. Gorman acknowledged, SDG&E's credit rating is "still rated lower today than it was in 2017."[99] The Public Advocates Office ("PAO") has similarly noted the cautious reaction of credit rating agencies in a contemporaneous Commission proceeding:

> [T]he reactions of the credit rating agencies to AB 1054 do not support the . . . assumption that the [Wildfire] Fund will reduce costs to ratepayers by dint of a lower cost of capital. For example, S&P did not change its ratings for either Southern California Edison Company (SCE) or San Diego Gas & Electric Company in response to AB 1054 and the commitment of both companies to participate in the Fund. In both ratings

96 Moody's July 29, 2019 Report at 1-2.

97 S&P July 30, 2019 Report, Exh. SDG&E-22-C at 2.

98 *See* Folkmann/SDG&E Exh. SDG&E-01-S at 1.

99 Gorman/EPUC/IS/TURN Tr. V.3:401:24-25.

affirmations, S&P warned of potential reasons to downgrade the utility within the next 18 months.[100]

For example, although Moody's views AB 1054 as "very credit positive," [101] it does not believe that AB 1054 is a "comprehensive solution for utility wildfire risks."[102] The muted response of credit rating agencies is for two primary reasons. *First*, Moody's and other credit rating agencies do not view AB 1054 as a complete solution because it did not address two significant aspects of the unique wildfire risk threating California wildfire liabilities – the frequency and magnitude of wildfires in California and the application of inverse condemnation to investor owned utilities that cannot automatically spread the costs through rates.[103]

As Fitch states, "[t]he continuation of inverse condemnation remains a long-term credit issue for SDG&E as an electric utility in California."[104] RRA, a group within S&P that periodically evaluates the regulatory climate for energy utilities throughout the country, similarly stated that, despite some of the "more constructive aspects of the California regulatory framework," it was downgrading its rating of California's regulatory climate from Average/1 to Average/2 a month after AB 1054's passage, because – in RRA's view – the combination of

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[100] Rulemaking ("R.") 19-07-017, Opening Comments of the Public Advocates Office (August 29, 2019), Exh. SDG&E-27 at 16-17 (citation omitted).

[101] *See* Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2.

[102] *Id.*; *accord* S&P Global Market Intelligence, Regulatory Research Associates ("RRA"), *State Regulatory Evaluations* (Aug. 15, 2019) ("RRA Aug. 15, 2019 Report"), Exh. SDG&E-20-C at 3 (downgrading California's regulatory environment rating based, in part, on RRA's view that a "more comprehensive approach" than AB 1054 is needed for California's wildfire liability risk).

[103] *See* Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2 ("AB 1054 does not reform the state's inverse condemnation law."); S&P July 30, 2019 Report, Exh. SDG&E-22-C at 2 (noting that AB 1054's provisions need to offset "the rising risks of [SDG&E's] increased susceptibility to catastrophic wildfires due to climate change and California's courts' interpretation of inverse condemnation.").

[104] Folkmann/SDG&E Exh. SDG&E-01-S at Appendix C.

inverse condemnation and increased severe weather events "argues for a more comprehensive approach,"[105] than AB 1054 provides.

Second, the extent to which AB 1054 successfully reformed SDG&E's ability to obtain cost recovery is also uncertain and untested. As Moody's states, a "[f]ailure to successfully implement the provisions of AB 1054 associated with the [wildfire] fund in a consistent and credit supportive manner" would likely trigger negative credit momentum on SDG&E's credit rating.[106] RRA similarly notes that, while AB 1054 mitigates some of the California utilities' exposure to wildfire liability, it is "unclear whether the funding mechanisms" in AB 1054 will avert California utilities being responsible for wildfire costs under inverse condemnation even if the utility "adhered to prevailing safety guidelines."[107]

Credit rating agencies see two primary risks related to AB 1054's implementation: (1) uncertainty regarding how the revised prudency standard will be implemented; and (2) uncertainty as to how long the wildfire fund will remain solvent. As Mr. Folkmann testified regarding the application of the prudency standard, "[b]eauty is in the eye of the beholder."[108] Although the revised language is modeled to more closely track FERC's application of the prudency standard, assessing risk is about considering investor expectations. Investors have "[v]ery significant questions with regard to how the new prudency standard would be applied in a real fact situation."[109] This uncertainty is reflected in the credit rating agencies' caution about AB 1054's prudence standard revisions:

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[105] RRA Aug. 15, 2019 Report, Exh. SDG&E-20-C at 3.

[106] Folkmann/SDG&E Exh. SDG&E-01-S at Appendix E.

[107] RRA Aug. 15, 2019 Report, Exh. SDG&E-20-C at 3.

[108] Folkmann/SDG&E Tr. V.5:805:11-12.

[109] *Id.* at 794:1-3.

- **S&P:** If "the [C]ommission does not implement AB 1054 in a credit-supportive manner then much of the new law's credit-supportive elements related to the revised standards of a utility's reasonable conduct could potentially be negligible;"[110]
- **Moody's:** "The *application* of this revised prudency standard by the CPUC in a credit supportive manner would likely strengthen our view of the credit supportiveness of the regulatory environment in California. However, this is likely to take some time as it remains to be seen how challenging it will be for the intervenors to create serious doubt [and flip the burden of proof back to the utility], an undefined term and subject to the CPUC's interpretation;"[111]
- **Fitch:** "Other credit constraints include . . . the lack of a track record of implementing the new legislation especially the new prudence standard which is subject to interpretation."[112]

The risk for investors is that California utilities will continue to be found imprudent under new vague, untested standards regarding the same event where another jurisdiction, such as FERC, would allow cost recovery.[113] As Messrs. Graves and Mudge note, "[p]reparing for fires is extraordinarily complex."[114] Mr. Folkmann adds that wildfire proceedings have become "charged" events;[115] reflected in Moody's concern that "utilities in California tend to receive a higher level of scrutiny and attention from both the media and the public, such that issues can quickly become contentious."[116] These factors create uncertainty such that stakeholders cannot

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[110] S&P July 30, 2019 Report, Exh. SDG&E-22-C at 2.

[111] Moody's Aug. 2, 2019, Report, Exh. SDG&E-23-C at 5 (emphasis added).

[112] Folkmann/SDG&E Exh. SDG&E-01-S at Appendix C.

[113] *See* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 19 ("the determination of what constitutes a reasonable and prudent manner is subject to each regulator's interpretation of that standard."); Folkmann/SDG&E Tr. V.5:792 (opining that applying the revised prudence standard in a credit supportive manner would be applying it in a manner similar to other jurisdictions, particularly FERC).

[114] Graves/Mudge/SCE Tr. V.3:494:7-8.

[115] Folkmann/SDG&E Tr. V.5:794.

[116] Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 6.

assume that AB 1054's revised prudency standard will applied in the same manner as it is at FERC or in other jurisdictions.

Investor fears have been underscored by the analytical assumption by Filsinger Energy Partners ("Filsinger") – an energy consulting firm retained by Governor Newsom's Wildfire 'Strike Force' to assess the potential impacts of AB 1054 – that 75 percent of wildfire costs would be deemed imprudent in 2020, declining gradually to 25 percent by 2030 (the "variable prudency" assumption).[117] Moody's relied upon those Filsinger assumptions in making its assessment of AB 1054's impact.[118] Because Moody's relied upon the variable prudency assumption – and because that assumption was coming from a source that informed the state in setting its design of the AB 1054 – this variable prudency assumption is "shaping investor expectation[s]" about how AB 1054 "was likely to be applied," regardless of whether the assumption turns out to be accurate.[119] For stakeholders that are already skeptical of how the Commission will evaluate prudence given the WEMA decision, an assumption of 75 percent of wildfire costs being disallowed underscore the ongoing risk of California disallowing costs in situations where FERC and other jurisdictions would find prudent actions and allow cost recovery.[120]

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[117] Filsinger Energy Partners, *California Wildfire Fund Durability Analysis* (June 26, 2019) ("Filsinger Jun. 26, 2019 Report"), Exh. TURN-01 at 2.

[118] *See* Folkmann/SDG&E Exh. SDG&E-01-S at Appendix B, p. 1; *accord* Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 5.

[119] Graves/Mudge/SCE Tr. V.3:494:23 – 495:14; *see id.* at 510:1-3 (Filsinger's assumption of a sliding scale from 75%-25% imprudence from 2020 to 2030 is the "way these utility investors are going to view the risks going forward"); *id.* at 527 (noting that there is no other analysis of how the prudency standard will be applied beyond Moody's reliance on Filsinger's variable prudency standard for investors to rely upon); Coyne/Reed/SDG&E Tr. V.4:752:16 (the variable prudency outcomes are the assumptions that the "investment community [is] focused on").

[120] Coyne/Reed/SDG&E Tr. V.4:719:10-14 ("The second question about prudence is going to be fact-specific and, more importantly, it's going to be fact-specific to a new prudent standard that has never been administered in California before."); *see also id.* at 763:15-16 (explaining that Filsinger's 75

As Kevin O'Donnell noted on behalf of the Federal Executive Agencies ("FEA"), he is not aware of FERC ever disallowing wildfire cost recovery – a significant difference from a 75 percent disallowance assumption.[121] Mr. O'Donnell added that FERC is "relatively consistent based on preceden[t],"[122] meaning that stakeholders feel assured that FERC will assess wildfire prudency in a uniform manner, reducing uncertainty. Notably, based on the Agency's 2014 SDG&E decision, this means that FERC will likely continue to take inverse condemnation into account when assessing cost recovery for California utilities "even when the presumption of prudence is not dispositive" – a potentially significant continuing difference between FERC and the CPUC, as AB 1054's revised prudency standard still not does provide for any consideration of strict liability.[123]

Moreover, if Filsinger's variable prudency assumption turns out to be inaccurate and utilities are found prudent more frequently, inverse condemnation's burden-shifting onto utilities and ratepayers still increases risk to California utilities through rate pressure, potentially crowding out the ability of SDG&E to make other needed investments.[124]

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percent assumption refers to disallowance of "75 percent of the ultimate claim being presented to the CPUC").

[121] *See* O'Donnell/FEA Tr. V.3:370-71; *see also* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 9 (noting that the Filsinger assumptions "indicat[e] that the revised prudence standard may be applied in a different manner than at FERC.").

[122] O'Donnell/FEA Tr. V.3:382:7-8.

[123] *Compare SDG&E*, 146 FERC ¶ 63,017, P 60 ("While the presumption of prudence and lack of challenge are dispositive, as demonstrated above, even if they were not, under California law SDG&E would likely have been held responsible for such costs irrespective of fault. Therefore, inclusion of those costs . . . was valid."), *with* Cal. Pub. Util. Code § 451.1 (not mentioning inverse condemnation or strict liability).

[124] *See* Folkmann/SDG&E Tr. V.5:853-54; Concentric/SDG&E Exh. SDG&E-05-S, Ch. 2 at 5 ("A negative rating factor that I think will persist for a considerable time is what I call 'ratepayer fatigue,' which was articulated by S&P as a secondary credit risk in a June 2019 commentary. If rate increases are necessitated for wildfire cost recovery, it could crowd out the ability of a utility to fully and timely recover other costs in rates. This lingering risk, a function of the continuing threat that inverse

And if California utilities are found prudent more frequently than in Filsinger's "variable prudency" assumption, it increases the risk of the other primary concern regarding AB 1054 – the fear that the wildfire fund will quickly become insolvent more quickly – at which point the electric utilities also lose their cap on liability.[125]

- **S&P**: If the fund becomes fully depleted, SDG&E loses the "loses the credit benefit of using the [wildfire] fund as a source of liquidity and more importantly loses the credit protection of the liability cap," meaning that SDG&E's "longer-term risks include the lack of an automatic replenishing mechanism and the depleting nature of the insurance fund whenever there is a catastrophic wildfire caused by a participating investor-owned electric utility;"[126]
- **Moody's**: "If and when the [wildfire] fund's claims paying capability is exhausted, the majority of the credit friendly structures, including the disallowance cap, will terminate.";[127]
- **Fitch**: if the "[f]requency and magnitude of catastrophic wildfires in the next few years deplete the fund much sooner than expected," it could lead to a negative ratings action.[128]

This makes the duration of the wildfire fund critical. Uncertainty regarding the wildfire fund's durability goes beyond simply how often a utility will be found prudent. Moody's in fact relies upon four Filsinger assumptions in assessing the durability of the wildfire fund:

- The wildfire experience of the past five years applies;
- Utilities maintain $1 billion of wildfire liability insurance;
- "[Seventy five percent] of wildfire costs are disallowed in 2020 but fall[] steadily to 25% by 2030;" and

condemnation's burden-shifting poses to California utilities and their ratepayers, could act to limit the ratings upside for SDG&E and other utilities by suppressing the agencies' view of regulatory risk in California." (citation omitted))

125 Filsinger Jun. 26, 2019 Report, Exh. TURN-01 at 2 (noting the higher likelihood of the fund being exhausted if utilities are always found prudent); *see* O'Donnell/FEA Tr. V.3:377, 380 (acknowledging that how long the fund lasts is tied to the rate of imprudency findings).

126 S&P July 30, 2019 Report, Exh. SDG&E-22-C at 1-2.

127 Folkmann/SDG&E Exh. SDG&E-01-S at Appendix B, p. 1.

128 *Id.* at Appendix C, p. 4.

- The subrogation incentives work as intended, inducing insurers to settle claims at a 40 percent discount to stretch the wildfire fund's coverage beyond its $21 billion capitalization.[129]

One or all of these assumptions could be incorrect, leading to significant uncertainty regarding the duration of the fund. As discussed, without knowing how the revisions to the prudency standard will be applied, it is impossible to know with precision what percentage of catastrophic wildfire claims on the fund will be found prudent – and with it, how long the fund will last.[130] Similarly, the wildfire fund's duration will be much shorter if the experience of the last two years of catastrophic wildfire liability applies moving forward, rather than the last five years.[131] That is, according to Filsinger, the last five years have seen an average utility-caused wildfire loss of $8.5 billion. But the average loss, for the last two years alone, is over $12 billion annually.[132]

The provision incentivizing the settling of claims at 40 percent or less might not work as intended.[133] An alternative assumption that the average wildfire experience of the last two years

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[129] *See id.* at Appendix B, p. 1 (noting these four assumptions and Moody's reliance on those assumptions in reaching their assessment about the longevity of the wildfire fund); Widjaja/SDG&E Exh. SDG&E-03-S at 5-7 (examining why each assumption may not be correct); Concentric/SDG&E Exh. SDG&E-05-S, Ch. 1, at 11 (same).

[130] *See* Coyne/Reed/SDG&E Tr. V.4:684:16-28 (explaining why it is important to assess all prudency scenarios).

[131] *See* Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 5 ("we also believe that the size of the wildfire fund is an important consideration for SDG&E's credit quality, particularly as the state seems to be increasingly prone to more extreme events due to the combination of weather, climate change and population density.").

[132] *See* Widjaja/SDG&E Exh. SDG&E-01-S at 6 (noting this distinction between the average of the last two years and the last five); *see also* Coyne/Reed/SDG&E Tr. V.4:723:17-19 (Filsinger recognized "that if, in fact, the performance was more like the last two years that the Wildfire Fund would be inadequate to remain solvent."); Graves/Mudge/SCE Tr. V.3:524 ("there is a possibility that the fund will start to experience shortfalls even within the first three years.").

[133] *See* Coyne/Reed/SDG&E Tr. V.4:723:21-25 (stating that the "assumption with regard to a 40 percent settlement rate on the claims, is very, very optimistic based upon the experience of SDG&E, [where]

continues, combined with an increase in the settlement percentage to 60 percent, results in a much quicker fund depletion regardless of how frequently a utility is found to have acted prudently.[134]

And the wildfire fund exposes SDG&E to new contagion risks – namely that the duration of the fund is largely outside of the Company's control. As S&P states:

> AB 1054 directly associates SDG&E's credit quality to the operations of its California electric utility peers. Meaning even if SDG&E continues to maintain its operational excellence, its longer-term benefit of the credit-supportive liquidity cap is ultimately dependent on the operations of California's other investor-owned electric utilities that are also contributing to the insurance fund.[135]

As Mr. Reed described, uncertainty exists regarding how AB 1054's revised prudency standard, the duration of the wildfire fund, and the settlement incentive provision will work.[136]

> Uncertainty equals risk. Risk equals a return requirement. So we recognize there's an uncertainty there. And we would hope that uncertainty is reduced over the next 2, 5, 10 years. But today, as we stand here, it is uncertain, and uncertainty equals risk.[137]

Mr. Reed continued that it is likely going to take "a show-me kind of a result," regarding cost recovery under the revised prudency standard to further lower risk regarding wildfire liability in California.[138] Moody's similarly indicated that, although the "application of this

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it was more like 56, 57 percent"); *see also* Graves/Mudge/SCE Tr. V.3:529:5-7 (noting that "it matters enormously how successful the State is in settling claims at a discount.").

[134] Coyne/Reed/SDG&E V.4:723-24; *accord* Concentric/SDG&E Exh. SDG&E-05-S, Ch. 1, at 11 (same).

[135] S&P July 30, Exh. SDG&E-22-C at 2; *accord* Folkmann/SDG&E Exh. SDG&E-01-S at Appendix C, p. 3 ("Contagion Risk: Funds available to SDG&E will be affected by the frequency and severity of wildfires in other IOUs' service territories as well as their safety conduct which is less favorable, in Fitch's view. If the fund is depleted, the limit of each utility's liability does not apply.").

[136] Coyne/Reed/SDG&E Tr. V.4:725.

[137] *Id.* at 725:5-10.

[138] *Id.* at 719:27.

revised prudency standard by the CPUC in a credit supportive manner would likely strengthen our view of the credit supportiveness of the regulatory environment in California . . . this is likely to take some time."[139] And any further positive ratings action is also dependent upon positive outcomes in this cost of capital proceeding and other regulatory proceedings.[140]

This indicates that it will be a long process for any ratings improvement – likely dependent on experience with the application of the revised prudency standard, the wildfire fund's durability, and credit-supportive outcomes in this cost of capital proceeding.[141] Until that time, irrespective of the accuracy of wildfire fund-related assumptions, California utilities will continue to face unique risks from the combination of the greater probability of wildfire risk, inverse condemnation, and an uncertain regulatory environment following AB 1054.[142]

2. California Utilities Face Significant Non-Wildfire Risks

In addition to the risks related to potential wildfire liability described above, SDG&E faces significant risks not related to wildfire liability that are relevant to the determination of SDG&E's authorized ROE and overall ROR. Messrs. Folkmann and Widjaja explained that the unique nature of the non-wildfire risk currently faced by SDG&E stems primarily from the combination of California's aggressive policy mandates and the uncertainty created by

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[139] Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 5; *see also* Folkmann/SDG&E Exh. SDG&E-01-S at Appendix E, pp. 3-4 (noting that actions that could lead to a positive ratings action include an effective implementation of A.B. 1054, the continued success in wildfire mitigation activities, a favorable GRC order and/or meaningful improvement in rate regulation, and indications that a repeal of inverse condemnation was forthcoming).

[140] Folkmann/SDG&E Exh. SDG&E-01-S at Appendix E, p. 1.

[141] *Id.* at 12; *see also* Concentric/SDG&E Exh. SDG&E-05-S, Ch. 2 at 4 ("The rating agency reactions (see below) indicate to me that incremental wildfire liability reform is a first step in a process that will take a long time to prove out before leading to widespread ratings improvement.").

[142] Coyne/Reed/SDG&E Tr. V.4:754-55.

significantly increased load departure due to Community Choice Aggregation ("CCA") and Direct Access ("DA"), which is upending the traditional utility model and regulatory framework.

As Mr. Widjaja observed, "[t]he energy industry in California is in a period of unprecedented change as government policies, customer needs and technology innovation are transforming towards a more decentralized, less utility-centric environment; all while simultaneously advancing increasingly aggressive clean energy goals."[143] He noted the Commission's own warning that the rapid changes occurring in California's electric sector and lack of a comprehensive regulatory framework to address disaggregation of load, are "creating unintended adverse consequences."[144] In addition, factors such as cost shift and rate pressure due to increased reliance on Distributed Energy Resources ("DERs"), technology and cybersecurity risk, and SDG&E's planned capital projects create investment risk.

These risks cannot be analyzed in isolation; rather they are interconnected and interdependent, creating an amplified systemic risk that is new, complex, and difficult to track, and that is more likely to produce unforeseen or unpredictable outcomes.[145] Moody's assessment of these political and public policy challenges, taken together, resulted in the credit rating agency only rating SDG&E a "Baa" for the "Consistency and Predictability of Regulation," and the "Timeliness of Recovery of Operating and Capital Costs;" meaning that they are holding back the credit rating agency from restoring SDG&E's credit rating.[146] Moreover, these risks are increasing at a rate above national utility averages.[147] As SCE witness, Dr. Stern, correctly

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[143] Widjaja/SDG&E Exh. SDG&E-03 at 19.

[144] *Id.* (citation omitted).

[145] *Id.* at 19 – 20.

[147] *Id.* at 20.

observed during the evidentiary hearing, "California is uniquely pursuing policies to a degree that is unparalleled in other jurisdictions."[148] SDG&E is committed to achieving the State's ambitious energy policy and technology goals, and commends the Commission for its role as a change leader. As a practical matter, however, SDG&E's ability to attract the capital investment necessary to allow it to meet the State's policy objectives depends upon authorization of an ROE that provides investors a return commensurate with the higher risk profile caused by the embedded risk in SDG&E's businesses.[149]

a. Ambitious Public Policy Initiatives

California energy policy has continued to evolve with an even greater emphasis on clean and sustainable energy solutions.[150] Most notably, Senate Bill ("SB") 350 and SB 100 establish aggressive new clean energy, clean air and greenhouse gas ("GHG") reduction goals for 2030 and beyond.[151] As emphasized above, SDG&E supports the State's policy objectives. Yet Moody's recently underscored the investment risk for SDG&E associated with the State's mandates, pointing out "the significant demands that are placed on the California utilities, including many ambitious public policy initiatives that are implemented through utility operations."[152]

As Mr. Widjaja explained, the State's decarbonization goals focus in the near-term on heavy reliance on renewable energy resources procured through the Renewable Portfolio Standard ("RPS") program – SB 100 sets the current RPS standard at 60 percent by 2030, with

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[148] SCE/Stern Tr. V.2:167:15-17.

[149] Widjaja/SDG&E Exh. SDG&E-03 at 20.

[150] *Id.* at 23.

[151] Folkmann/SDG&E Exh. SDG&E-07 at 10-11.

[152] Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 6; Folkmann/SDG&E Exh. SDG&E-07 at 10.

the remaining 40 percent of energy supplied by zero-carbon resources by 2045. He observed that these targets are among the most ambitious in the country.[153] This conclusion was echoed by SCE witness, Dr. Stern, who testified during the evidentiary hearing that "the degree to which California is pursuing clean energy goals in things like RPS, in things like procurement of energy storage and things like electrification goes beyond what is happening in other parts of the country."[154]

The ambitious clean energy goals set by the State, while laudable, present significant investment risk for California utilities. *First*, increased reliance on RPS resources presents operational risks related to integration of intermittent resources and grid reliability that are well-known to the Commission.[155] Safe and reliable operation of the electrical grid requires that electric supply always equal real-time electric demand. With the introduction of increasing levels of intermittent and variable RPS resources such as wind and solar onto the grid, system challenges associated with the mismatch between the daily peak demand and the daily peak of renewable generation become more acute.

This mismatch creates operational risks for SDG&E related to over-generation by RPS resources and the challenge of ensuring that system resources can ramp to meet the wide swing in demand reflected in the "duck curve" developed by the California Independent System Operator ("CAISO"). SB 100 will drive an increase in the level of intermittent resources on the

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[153] Widjaja/SDG&E Exh. SDG&E-03 at 23, citing Lawrence Berkley National Laboratory, *U.S. Renewables Portfolio Standards, 2017 Annual Status Report* (July 2017), *available at* http://eta-publications.lbl.gov/sites/default/files/2017-annual-rps-summary-report.pdf.

[154] SCE/Stern Tr. V.1:119:12-17.

[155] *See, e.g.*, D.19-04-040 at FOFs 32-35 (noting that existing renewable and energy storage technologies are not sufficient to ensure system reliability); California Public Utilities Commission, Staff White Paper, *Beyond 33% Renewables: Grid Integration Policy for a Low-Carbon Future* (November 25, 2015) at 1.

grid. In addition, many CCAs have clean energy goals that are intended to *exceed* the State's RPS goals.[156] Thus, since CCA formation in California is expected to continue its dramatic growth, it is reasonable to expect that levels of renewable generation on the grid may surpass even what is expected through implementation of SB 100. The need to integrate unprecedented levels of new renewable generation onto the grid could involve significant capital investments and operations and maintenance ("O&M") costs and have a direct negative impact on SDG&E's cash flow, balance sheet and credit metrics.

Second, fully achieving the State's 100 percent clean energy goal may involve reliance on newly-developed technologies. It is not clear that existing renewable technologies such as wind and solar, even with battery storage, will be sufficient by themselves to achieve the 100 percent zero-carbon objective.[157] Thus, satisfaction of the statutory requirements of SB 100 may introduce new grid integration challenges that are not apparent today. The Commission will consider in its Integrated Resource Planning ("IRP") proceeding potential requirements intended to address this situation.[158] The potential for such future action is plainly relevant to equity investors' analysis of SDG&E's long-term investment risk.

Third, the long-term contracting necessary to meet the State's RPS and clean energy goals imposes financial and regulatory risk on SDG&E. SDG&E currently has a significant

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[156] *See, e.g.*, D.18-02-018 at 24.

[157] The Commission, the California Air Resources Board ("CARB"), and the California Energy Commission ("CEC") will evaluate all aspects of the 100 percent zero-carbon goal, including safety/reliability and potential technologies, in a series of Joint Reports to the Legislature, the first of which will be completed by January 1, 2021. *See* Cal. Pub. Util. Code § 454.53(d)(2); *see also* California Energy Commission, *SB 100 Joint Agency Report, available at* https://www.energy.ca.gov/sb100.

[158] California Public Utilities Commission, *2018 California Renewables Portfolio Standard Annual Report* (November 2018) at 47.

number of long-term RPS power purchase agreements ("PPAs") in its resource portfolio.[159] And SB 350 requires that at least 65 percent of RPS procurement be derived from long-term contracts. SDG&E's high number of long-term PPAs could negatively impact SDG&E's credit ratings to the extent that the credit rating agencies treat SDG&E's obligations under such PPAs as "debt equivalent."[160] Martiza Mekitarian described the relationship between long-term PPAs and debt equivalence, explaining that "[d]ebt equivalence is a concept used by credit ratings agencies to describe the financial risk resulting from signing long-term contracts, such as PPAs . . . those agencies consider the fixed financial obligations resulting from long-term PPAs to be debt or debt equivalence due to the financial risk inherent in such multi-year contracts."[161] Ms. Mekitarian detailed during the evidentiary hearing how credit ratings agencies' provide guidance regarding debt equivalence:

> There is some guidance [the credit ratings agencies] provide where they talk about how they calculate a potential debt factor for the PPAs that we have disclosed in our financial statements, such as a 10k. They can look at the 10k which was referenced earlier today, and in there we disclose the future obligations of our power purchase agreements. And even though these power purchase agreements are not calculated as debt on the books, they're future obligations to the company, some of the credit rating agencies can view that as higher risk and then they could impute an amount of debt that they convert when evaluating our credit metrics.[162]

The Commission has also addressed the credit ratings agencies' method for determining debt equivalence:

> Credit agencies do not use a standard method to calculate long-term debt equivalence. S&P's uses a risk factor of 50% as a generic guideline for

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[159] SDG&E has also entered into long-term PPAs for conventional generation. *See* Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 7-8.

[160] Widjaja/SDG&E Exh. SDG&E-03 at 27.

[161] Mekitarian/SDG&E Exh. SDG&E-02 at 11.

[162] Mekitarian/SDG&E Tr. V.5:902:13-27.

> utilities with PPAs included as an operating expense in base tariffs and lowers that risk factor to 25%, as appropriate, when purchased power costs may be recovered via a fuel-adjustment clause. Moody's employs a different methodology in assessing utility PPAs. In certain cases, Moody's would not impute any debt and in other cases consider PPAs as a positive risk mitigation factor. Moody's recognizes that PPAs have been used by utilities as a risk management tool. Thus, it will not automatically penalize utilities for entering into contracts for the purpose of reducing risk associated with power price and availability. Moody's look at the aggregate commercial position, evaluating the risk to a utility's purchase and supply obligations. In addition, PPAs are considered by Moody's to be similar to long-term supply contracts used by other industries and their treatment should not therefore be fundamentally different from that other contracts of a similar nature.[163]

This description is consistent with Moody's recent statement that it treats certain SDG&E non-RPS contracts as operating costs rather than debt equivalent. It is important to note, however, that Moody's caution that this treatment could change if there is "a deterioration in the regulatory support that decreases the utility's ability to recover these [contract] costs."[164] SDG&E's debt equivalence exposure (and the potential for consolidation of certain PPAs under Accounting Standard Codification 810)[165] increases SDG&E's investment risk profile.[166] SDG&E's execution of additional long-term PPAs in the future in order to meet the State's RPS and clean energy requirements could cause SDG&E's debt equivalence figure to continue to grow; meaning that SDG&E's financial credit ratios will continue to deteriorate.[167] The

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[163] D.12-12-034 at 10-11.

[164] Moody's Aug. 2, 2019, Report, Exh. SDG&E-23-C at 8.

[165] Widjaja/SDG&E Exh. SDG&E-03 at 27. Accounting Standard Codification ("ASC") 810 "is a generally accepted accounting principal that requires an entity such as SDG&E having a controlling financial interest in another entity, such as its proposed purchase power tolling agreements, to consolidate those other entities into the financial statements of the controlling financial entity." D.12-12-034 at 10, n.22.

[166] Widjaja/SDG&E Exh. SDG&E-03 at 27; *see also* Mekitarian/SDG&E Exh. SDG&E-02 at 11-13.

[167] Widjaja/SDG&E Exh. SDG&E-03 at 27.

Commission has expressly acknowledged the risks associated with debt equivalence,[168] making clear that debt equivalence impacts utility credit ratings and must be balanced in both the utility's adopted capital structures and authorized ROE.[169]

The ability of – and determination with which – stakeholders can challenge the utilities' proposed procurement contracts and recovery of procurement costs incurred under Commission-approved contracts is relevant to the analysis of debt equivalence and the level of regulatory support for cost recovery – as well as the risk of regulatory lag. In a section of Moody's August 2, 2019 report that specifically references the "[e]levated political risk and public scrutiny in California" in the context of the State's aggressive renewables plans, Moody's observes that "SDG&E's credit also incorporates our view that utilities in California tend to receive a higher level of scrutiny and attention from both the media and the public, such that issues can quickly become contentious."[170] This perception of a relatively high degree of cost recovery risk is characterized by Moody's as a "credit challenge" with the potential to negatively impact SDG&E's credit rating.[171]

Intervenors can and routinely do challenge the procurement contracts submitted for Commission approval by the utilities. Indeed, even when contracts have been approved by the

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168 Mekitarian/SDG&E Exh. SDG&E-02 at 13 (citing California Public Utilities Commission, *An Introduction to Debt Equivalency* (August 4, 2017), *available at* http://www.cpuc.ca.gov/uploadedfiles/cpuc_public_website/content/about_us/organization/divisions/policy_and_planning/ppd_work/ppd_work_products_(2014_forward)/ppd%20-%20intro%20to%20debt%20equivalency(1).pdf.

169 Mekitarian/SDG&E Exh. SDG&E-02 at 13 (citing D.12-12-034 at 29 (The Commission's goal in considering debt equivalence is to "provide reasonable confidence in the utilities' financial soundness, to maintain and support investment-grade credit ratings, and provide utilities the ability to raise money necessary for the proper discharge of their public duty.").

170 Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 6.

171 *Id.* at 2.

Commission, the reasonableness of provisions included in such contracts have in some cases been challenged *several years* after Commission approval. This type of persistent stakeholder attack reinforces the perception that SDG&E exists in a "contentious" environment that subjects it to heightened cost recovery risk.[172] Once contracts are approved, stakeholders may challenge the utility's contract administration and the costs incurred under such contracts, and seek disallowance through the Energy Resource Recovery Account ("ERRA") balancing account proceedings.[173] Since CCA formation in SDG&E's service territory is expected to grow dramatically over the next few years,[174] it is logical to assume that challenges to SDG&E's RPS contract costs by CCAs seeking disallowances will likewise grow.

In D.18-10-019, issued in Phase One of the Commission's Power Charge Indifference Adjustment ("PCIA") proceeding, the Commission signaled its intent to establish "standards for *more active management* of the utilities' portfolios in response to departing load in the future [and] . . . shareholder responsibility for future portfolio mismanagement, if any, so that neither bundled nor departing customers bear full cost responsibility if utilities do not meet established portfolio management standards."[175] Equity investors have little information at this point regarding the new standards the Commission will adopt or their impact on SDG&E. Indeed, the Commission acknowledges that "[t]here remains a significant degree of uncertainty regarding what further portfolio optimization and management tools will be possible and effective."[176] As Mr. Folkmann noted, the likelihood of increased challenges to SDG&E's procurement costs due

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[172] *See id.* at 7.

[174] Folkmann/SDG&E Exh. SDG&E-07 at 12.

[175] D.18-10-019 at 112 (emphasis added).

[176] *Id.* at 113.

to growth in CCA – combined with uncertainty regarding the Commission's apparent intent to establish a new, potentially more stringent, prudence standard for utility procurement (compared to other jurisdictions) – increases the perception of risk associated with SDG&E's long-term RPS (and, potentially, new technology resource) PPAs.[177]

b. Increased Customer Adoption of Advanced Technologies

Deployment of distributed energy resources ("DERs") such as rooftop solar and energy storage has grown significantly since 2012. For example, net energy metering ("NEM") resources have increased from approximately 130 cumulative megawatts ("MW") in 2012 to over 995 cumulative MW in 2018.[178] As discussed below, this growth in DERs creates two areas of investment risk for SDG&E. *First*, shrinking customer load volume results in cost shift to customers without DERs and puts upward pressure on customer rates. *Second*, higher levels of DERs on the system can potentially increase operational risk and cause unanticipated increases in capital and O&M costs.

With regard to the first of these risks – *i.e.*, cost shift resulting from reliance on DERs and the resulting pressure on customer rates – SDG&E notes that the average net monthly use per residential customer from 2010 to 2018 has declined approximately 20 percent due primarily to the installation of rooftop solar and the success of energy efficiency programs.[179] While this increase in reliance on rooftop solar and adoption of energy efficiency measures aligns with California's policy goals, the unintended consequence is that under the volumetric rate structure

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[177] SDG&E/Folkmann Tr. V.5:827-828.

[178] SDG&E/Folkmann Exh. SDG&E-07 at 12. NEM is a tariff billing mechanism established pursuant to Cal. Pub. Util. Code § 2827 that allows eligible customer-generators to rely on an on-site distributed generation system (typically rooftop solar) to serve a portion of their energy needs, and to receive compensation for generation exported to the utility grid.

[179] Widjaja/SDG&E Exh. SDG&E-03 at 21.

currently in place for the California utilities this reduction in volume impedes SDG&E's ability to collect the fixed costs of providing service and utility infrastructure investments from DER customers. Instead, fixed costs under-recovered from DER customers are shifted to non-DER customers.[180]

The utility's cost of providing service includes: (i) customer costs; (ii) distribution demand capacity costs; (iii) systems capacity costs; and (iv) commodity costs. In addition, retail rates also recover the costs of legislative and regulatory mandated public policy programs from customers. A significant percentage of the cost of providing utility services – specifically customer costs, distribution demand capacity costs, and systems capacity costs – are fixed and do not vary based on a customer's kilowatt-hour ("kWh") energy use.[181] Nevertheless, *all* of the utility's costs of providing service (including fixed costs) are recovered from residential customers through a per-kWh volumetric rate.

Since a residential customer's reliance on a DER (and/or energy efficiency) reduces the volumes delivered to that customer, SDG&E's ability to fully recover fixed costs from that customer is likewise reduced.[182] Instead, these unrecovered costs are shifted to other residential customers.[183] As noted, this type of cost shift is viewed negatively by the credit ratings agencies since such cost shifts generally create rate pressure "result[ing] in increases in [customer] bills that would reduce the headroom available to recover other costs."[184] Cost shifts such as those experienced due to the increase in DERs, as well as the decline in usage and sales, have resulted

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[180] *Id.* at 20; Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 6.

[181] Widjaja/SDG&E Exh. SDG&E-03 at 20-21.

[182] *Id.*

[183] *Id.* at 21.

[184] Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 6.

in rate increases for SDG&E customers – rate increases that negatively impact the perception of SDG&E's risk.[185]

As for the second risk noted above – *i.e.*, that operational challenges related to DERs increases capital and O&M costs – Mr. Widjaja explained that the shift from the traditional one-way energy flow to a highly unpredictable and geographically diverse two-way energy flow makes the planning and operation of the system progressively more complex, which in turn increases risk.[186] For example, transformers can become overloaded in areas with high concentration of distributed generation, which threatens local distribution system reliability.[187] Greater reliance on DERs can result in a need for capital investments and increased O&M costs due to the potential for reduced life expectancy on existing infrastructure.[188] SDG&E's customers have tended to be early adopters of DERs. So SDG&E experiences this challenge more acutely, which contributes to investors' perception of higher risks.[189]

c. Uncertainty Caused by Fundamental Changes to Utility Role in the Market

For most of its history, SDG&E has operated as a vertically-integrated utility serving customers in its service territory as a monopoly provider.[190] However, with the State's embrace of customer choice (and DERs, as discussed above), the Commission is "revisiting 'long held assumptions in [its] regulatory frameworks and examin[ing] the role of the electric utility at the

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[185] Widjaja/SDG&E Exh. SDG&E-03 at 21.

[186] *Id.*

[187] *Id.*

[188] *Id.* at 23.

[189] *Id.* at 21-22.

[190] *Id.* at 20.

center of this system.'"[191] Put simply, the century-old paradigm of SDG&E acting as the primary supplier of energy to customers on a uni-directional basis from large central generation plants connected to load centers is quickly becoming a thing of the past.

The current reconceptualization of the incumbent utility's role in the regulatory framework is primarily driven by the State's policy in favor of retail customer choice. CCA programs allow communities to assume electric procurement responsibility for retail customers within their boundaries, thereby "replacing the regulated electric utilities as their provider."[192] The CCA program was first established in 2002, but the state has experienced rapid growth in CCA formation in recent years.[193] Similarly, the DA program allows certain customers to purchase their electricity from an Electric Service Provider ("ESP") rather than their incumbent electric utility.[194] DA-related load departure is currently capped at a statutory limit, but recently-adopted legislation increased the statewide cap and requires the Commission to provide recommendations to the Legislature regarding a schedule for reopening DA to all remaining nonresidential customers.[195] As a result, SDG&E predicts that within the next few years, it could be serving *less than 25 percent* of the load in its service territory.[196]

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191 Folkmann/SDG&E Exh. SDG&E-07 at 13.

192 D.18-10-019 at 2, 5.

193 *See* D.18-06-030 at 17 ("In recent years, the number of Community Choice Aggregators (CCAs) in California has increased dramatically."); D.19-06-026 at 21 (discussing the "recent proliferation of LSEs and substantial load migration.").

194 *See* D.10-03-022 at Appendix 1.

195 Senate Bill ("SB") 237, Stats. 2017-2018, Ch. 600 (Cal. 2018).

196 Widjaja/SDG&E Exh. SDG&E-03 at 22; *see also* California Public Utilities Commission, *2018 California Renewables Portfolio Standard Annual Report* (November 2018) at 45 (estimating that IOUS could lose 60-80 percent of their current demand within the next decade).

The State's rapid evolution toward an environment where the majority of customer load is served by CCAs and ESPs is a significant alteration of SDG&E's historical role in serving the customers located in its service territory. More broadly, the shift toward a world in which *multiple* providers (*e.g.*, the utility, multiple CCAs, and multiple ESPs in a service territory) perform the procurement function in a disaggregated manner –with potentially *no* provider individually serving a majority of load – represents a fundamental change in California's regulatory and market framework.[197] This new construct has major implications for, among other things, implementation of system reliability and clean energy policy requirements, which are currently established on the basis of load. In other words, the risk to equity investors presented by the State's ambitious new policy mandates is heightened by the complexities of achieving those mandates in an environment of rapidly departing load. As Mr. Folkmann pointed out, this combination "presents an exponentially increased risk compared to what existed in 2012."[198]

Not only is the speed and scale of the current evolution unprecedented; the Commission itself has acknowledged that there is no overarching strategy guiding this change. '"California may well be on the path towards a competitive market for consumer electric services but is moving in that direction without a coherent plan to deal with all the associated challenges that competition poses, ranging from renewable procurement rules to reliability requirements and consumer protection."'[199] This creates significant uncertainty, which presents risk. Investors in

[197] Folkmann/SDG&E Exh. SDG&E-07 at 12.

[198] *Id*.

[199] *Id.* at 13 (citing California Public Utilities Commission Staff White Paper, *Consumer and Retail Choice, the Role of the Utility, and an Evolving Regulatory Framework* (May 2017) at 3, *available at* http://www.ourenergypolicy.org/wp-content/uploads/2017/05/Retail-Choice-White-Paper-5-8-17.pdf.

California utilities have experienced the severe consequences of the State's policy experiments in the past – indeed, stakeholders have expressed concern that the current market changes could be another energy crisis in the making.[200]

To be sure, the Commission is working to realign the existing regulatory framework to address the issues that arise from the new market dynamic.[201] But whether the State's policy initiatives will ultimately achieve the intended objectives of GHG mitigation, system reliability, cost-effectiveness and ratepayer protection while enabling customer choice remains to be seen. In the meantime, significant investor uncertainty regarding the impacts of the current changes continues to exist. And the implementation of the Commission's new policy framework may impose substantial cost and risk on the California utilities, as discussed below. Thus, the perception of risk associated with SDG&E, and California utilities in general, is higher than for other utilities that are not navigating a major revamping of their market role and the related financial implications at the same time that they are implementing multiple ambitious policy initiatives and facing wildfire-related risks.[202]

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200 *See, e.g*., California Public Utilities Commission, *California Customer Choice: An Evaluation of Regulatory Framework Options for an Evolving Electricity Market* (August 2018) at 5 noting that "Without a coherent and comprehensive plan, the current policies in place may drift California to an unintended outcome and breakdown in services like the Energy Crisis."

201 Folkmann/SDG&E Exh. SDG&E-07 at 13; *see also Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements,* issued February 11, 2016 in R.16-02-007 (implementing the IRP process to oversee statewide resource planning by all load-serving entities ("LSEs") in order to ensure compliance with GHG reduction goals); D.18-06-030 (modifying the Resource Adequacy ("RA") program to add multi-year forward procurement requirements, and has articulated a policy in favor of a central buyer framework designed to preserve grid reliability in the current environment of fragmented load).

202 *See, e.g.* Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 2 (viewing SDG&E's "[d]emanding public policy goals and moderate carbon transition risk" as "credit challenges.").

i. RPS Program Risks

In the context of the Commission's RPS program, challenges related to utility load forecasting present significant financial and regulatory risk. Indeed, the Commission's *2018 Renewable Portfolio Standard Annual Report* ("RPS Report") identifies load forecasting uncertainty as a primary barrier to the utilities' ability to achieve RPS goals, noting that "[t]he growth in the number of registered CCAs and the growing trend of IOU customers transitioning to CCAs makes it increasingly difficult to forecast future IOU load."[203] The difficulty in developing load forecasts creates a risk of RPS under-procurement or over-procurement by the utility. If a utility under-procures, it may incur non-compliance penalties and/or be forced to procure more expensive RPS resources, which creates pressure on the utility's earnings as well as cost-recovery risk. Utility over-procurement present similar concerns – *i.e.*, higher levels of spending impacts cash flow and exposure to cost-recovery risk.

While the revised PCIA methodology is intended to ensure cost indifference for utility bundled customers, the new and potentially more stringent "portfolio optimization" aspect of the methodology undermines the effectiveness of this risk mitigation measure. As noted above, the Commission has suggested that it intends to adopt a new "more active" standard for utility portfolio management with shareholder responsibility for any portfolio mismanagement.[204] The combination of difficulty in anticipating load departure in a multi-CCA/ESP environment and a more rigorous portfolio management prudence standard that are not shared by utilities outside the State creates obvious financial and regulatory risk. As Mr. Folkmann explained, "there are

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[203] California Public Utilities Commission, *2018 California Renewables Portfolio Standard Annual Report* (November 2018) at 45.

[204] *See* D.18-10-019 at 112.

significant long-term business and financial risks from stranded assets in the absence of an optimal way to downsize SDG&E's portfolio to support the integration of CCAs."[205]

ii. RA Program Risks

The utilities also face risk related to the Commission's RA program. In the context of RA, the Commission has acted to mitigate the uncertainty related to forecasting bundled customer load in a departing load environment by establishing a binding load forecast process that locks in year-ahead RA requirements for all Commission-jurisdictional LSEs.[206] The Commission has made clear, however, that the binding load forecast process applies solely to the RA program and does not impact an LSE's legal ability to serve load (*i.e.*, load may depart after the binding load forecast has become effective).[207] Thus, as a practical matter, the process serves more as an RA cost allocation measure than an accurate quantification of load share. The more relevant risks in the context of the RA program relate to the Commission's multi-year forward local RA procurement requirements and the Commission's policy in favor of a Central Buyer construct for procurement of RA resources (*i.e.*, whether the utilities will serve as Central Buyer in their respective service territories).[208]

In response to increasing load disaggregation, the Commission has recently adopted a three-year forward local RA procurement requirement (100 percent in years one and two; 50 percent in year three).[209] Compliance with this requirement will result in an increase in the number of SDG&E's PPAs with a term longer than one-year, which are considered "long-term"

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205 Folkmann/SDG&E Exh. SDG&E-07 at 14.

206 D.19-06-026 at 27-29.

207 *Id.* at 27.

208 *Id.*

209 *See* D.18-06-030 at 24-30.

contacts for purposes of debt equivalence.[210] This increase in multi-year RA PPAs will have risk implications related to debt equivalence, placing increased pressure on SDG&E's balance sheet, cash flows and credit metrics.

iii. IRP Process Risks

Finally, the current load departure environment creates risk for SDG&E within the Commission's IRP process. As a practical matter, integration of the resource planning activities of the utilities and CCAs/ESPs – and in particular, the effort to shift the procurement obligation increasingly toward the CCAs – has proven to be challenging given the differing degrees of sophistication among CCAs and the general lack of compliance by CCAs that was observed in the first cycle of the Commission's IRP process. In its decision adopting the IRP Preferred System Portfolio ("PSP"), the Commission was blunt in addressing the deficiencies of the CCAs' procurement activities to date:

> [B]ecause of load migration primarily away from IOUs to CCAs, we expect that the majority of procurement of new resources in the next decade will be conducted by CCAs. We are aware that several CCAs are beginning to procure new resources, primarily renewables and storage, in order to achieve the ambitious GHG goals for 2030. *However, the amount of new resource procurement will need to be roughly twice what the CCAs have procured to date by 2022, and close to six times as much by 2030. These are ambitious goals that require a lot of concrete contracting in order to secure the resources necessary. It is not yet clear to us if it is feasible to rely on the CCAs for this level of procurement to achieve the 2030 portfolio . . . At that level of contract size, it would take almost 6,000 individual contracts to reach the 2030 new resource goals to achieve the optimal portfolio. This seems to be a serious challenge***.**[211]

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[210] Mekitarian/SDG&E Exh. SDG&E-02 at 11-12.

[211] D.19-04-040 at 133-134 (emphasis added) (citations omitted).

The Commission expressed particular concern related to the CCAs' lack of procurement of resources required for grid reliability, pointing out CCAs' practice of leaning on reliability resources procured by utilities rather than procuring such resources for their own portfolios:[212]

> We also wish to make clear to all LSEs that there is a shared responsibility among all of them for a reliable electric system that meets the state's environmental goals at least cost. The Commission made this point clearly in the recent resource adequacy decision refining the program for local capacity needs. *The current market trends appear to show that a large proportion of the responsibility for operational needs still rests on the large IOUs, despite the fact that resource adequacy requirements apply to all LSEs now serving customers. While the IOU customers have historically shouldered the burden of reliability resources, particularly natural gas, the load is departing rapidly for alternative providers, particularly CCAs, and the responsibility has not appeared to shift proportionately.*[213]

Since the Commission's jurisdiction over CCAs and ESPs is more limited than its plenary jurisdiction over the utilities, it is foreseeable that if CCAs/ESPs fail to execute on their service provider requirements, the Commission would order the utilities to undertake the necessary procurement of existing or incremental resources on their behalf. Thus, the primary risk that SDG&E faces related to IRP is that load will continue to depart – thereby decreasing bundled load volume and increasing cost-shift, which places upward pressure on SDG&E's rates and creates financial risk – but CCAs/ESPs will fail to assume the obligations associated with serving a significant portion of the retail customer base and the utilities will ultimately be forced to take on such obligations.

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212 *Id.* at 136.

213 *Id.* at 135-136 (emphasis added) (citations omitted).

While the Commission does not presently seem to be inclined to order the utilities to undertake procurement on behalf of other LSEs,[214] if circumstances were such that a material reliability or other customer-related concern were identified, the Commission's perspective could change.[215] Alternatively, the Commission could require SDG&E to enter into long-term PPA(s) for incremental resource(s) – either as part of "collective" action under the IRP process[216] or on an individual basis.

This risk is closely related to the risk, explained by Mr. Widjaja, that customer load that departs bundled utility service to be served by a CCA/DA provider might unexpectedly return to the utility. While such an event has not occurred to date, it does not follow that it never could, particularly given the relatively short period that most CCAs have been in operation. As Mr. Widjaja points out, "SDG&E, as the provider of last resort ("POLR"), must stand ready to provide electricity if the market does not meet customer demand due to a sudden exit or failure of an LSE."[217] This could "creat[e] unplanned procurement obligations that could put a strain on SDG&E's balance sheet and cashflows."[218]

Stakeholders are aware of these issues related to the POLR obligation. But there is little certainty at this point regarding what mechanisms would apply to ensure a smooth transition in

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214 *Id.* at 139 ("the primary responsibility for procurement rests with the individual LSEs to serve their own load.").

215 *See* R.16-02-007, Proposed Decision Requiring Electric System Reliability Procurement for 2021-2023 (September 12, 2019) at 32 ("We note that the Commission has the authority, articulated in § 451.51(c), to direct the IOUs to procure renewable integration resources on behalf of the electricity system as a whole and allocate those costs on a non-bypassable basis to all benefitting customers.").

216 D.19-04-040 at 140 ("procurement mechanisms to develop resources that one or a small number of LSEs may not be able to bring to fruition on their own").

217 Widjaja/SDG&E Exh. SDG&E-03 at 22.

218 *Id.* at 23.

the event of an unplanned exit by a CCA/ESP or who would bear the costs of such transition. This uncertainty makes it difficult to accurately quantify the potential impact, which serves to heighten the perception of SDG&E as relatively high-risk.

d. Technology and Cyber Security Risk

While all corporations face cyber risk (*e.g.*, malware, malicious intent by insiders and inadvertent disclosure of sensitive information), the utility industry faces particular threats related to grid and infrastructure security, and the need to protect sensitive and confidential information.[219]

This risk is neither theoretical, nor far out in time; there is evidence, for example, that state-sponsored Russian actors attempted to hack the U.S. electric grid in July 2018.[220] The consequences of an external actor successfully gaining control of the grid or other utility assets with the intent to cause harm to the public (*e.g.,* an act of terrorism) could be severe – the result could be catastrophic gas leaks, fire, explosions and/or system outages.[221] SDG&E must continuously invest in risk mitigation measures in order to safeguard its systems from technology, security, and cyber threats from potentially unknown and rapidly-changing sources.[222]

e. Elevated Levels of Capital Investment

SDG&E plans to undertake sizable capital projects over the next five years focused primarily on modernizing transmission and distribution infrastructure, and fire hardening

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219 *Id.* at 24.

220 *Id.* (citing The New York Times, *Russian Hackers Appear to Shift Focus to U.S. Power Grid* (July 27, 2018), *available at* https://www.nytimes.com/2018/07/27/us/politics/russian-hackers-electric-grid-elections-.html.

221 *Id*.

222 SDG&E/Widjaja, Exh. SDG&E-03 at 24.

measures designed to protect against extreme weather events and support public safety.[223] These capital investments are expected to be in the range of $6.4 to $7.1 billion, requiring SDG&E to access the capital markets.[224]

As discussed above, the regulatory cost recovery process imposes risk of under-recovery or delayed recovery of invested capital. An elevated level of capital investment increases this risk.[225] Mr. Widjaja noted that "[c]redit rating agencies and investors consistently analyze and focus on the effect that elevated capital investments may have on cash flows and corresponding pressure on credit metrics."[226]

B. SDG&E's ROE Proposal Reflects The Company's Unique and Heightened Risks

To respond to these elevated risks, SDG&E proposes a 12.38% ROE, based upon the recommendations of Dr. Roger Morin and Concentric.[227]

1. Dr. Morin's Traditional, Proxy-Based Recommendation

Dr. Morin's testimony provides market-based assessments of the risks associated with the Company's equity and determines the investor-required return commensurate with those risks. Dr. Morin recommends a "barebones" 10.9% ROE for SDG&E[228] – predicated on adoption of SDG&E's proposed capital structure of an authorized 56 percent common equity ratio to manage

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223 *Id*. at 27.

224 *Id.*

225 *Id.*

226 *Id.*

227 *See* Folkmann/SDG&E Exh. SDG&E-01-S at 13-14 (providing SDG&E's revised ROE request following AB 1054's passage).

228 *See* Morin/SDG&E Exh. SDG&E-04 at 5; *see also id.* at 55 (noting that the proxy group was comprised of a "less risky group of companies.").

financial risk – based on the "results of all [his] analyses, the application of [his] professional judgment, and the rather extraordinary risk circumstances of SDG&E."[229]

Dr. Morin reaches his conclusion by applying standard proxy-based cost of capital methodologies. Because SDG&E is a wholly-owned subsidiary of Sempra Energy and not publicly-traded, peer groups must be used to estimate the cost of equity.[230] Dr. Morin applies statistical methods to estimate required equity returns – generally referred to as the discounted cash flow ("DCF"), risk premium, and capital-asset pricing model ("CAPM") methods – to a group of investment-grade dividend-paying combination gas and electric utilities to establish an ROE range for SDG&E's utility peer group.[231] Specifically, Dr. Morin performed the following analyses:

- a DCF analysis on a group of investment-grade dividend-paying combination gas and electric utilities using Value Line's growth forecasts;
- a DCF analysis on a group of investment-grade dividend-paying combination gas and electric utilities using analysts' growth forecasts;
- a traditional CAPM using current market data;
- an empirical approximation of the CAPM using current market data;
- historical risk premium data from electric utility industry aggregate data, using the yield on long-term US Treasury bonds; and
- allowed risk premium data from electric utility industry aggregate data, using the yield on long-term US Treasury bonds.[232]

This resulted in the following ROE estimates for Dr. Morin's proxy group.

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[229] *Id.* at 60.

[230] *Id.* at 19, 22.

[231] *Id.* at 14-53. Dr. Morin's prepared direct testimony provides a more detailed description of his application of the various methodologies. Dr. Morin believes it important to rely upon multiple methodologies as all have limitations, investors rely upon multiple methods, and the results of each method can be used to check the other. *Id.* at 14-15, 53.

[232] *Id.* at 53; *see also* D.12-12-034 at 22 ("The financial models commonly used in ROE proceedings are the [CAPM], Risk Premium Model (RPM), and DCF Model.").

TABLE 4: Dr. Morin's Proxy Estimates

STUDY	ROE
DCF Utilities Value Line Growth	10.1%
DCF Utilities Analysts Growth	9.5%
CAPM	8.5%
Empirical CAPM	9.2%
Historical Risk Premium	10.5%
Allowed Risk Premium	10.4%

Removing the outlying result of 8.5%, the results range from 9.2% to 10.5% with a midpoint of 9.9%, which Dr. Morin applied as the ROE estimate for the *average risk* utility in the peer group.[233] As discussed further below, while Dr. Morin has not conducted an updated study, he estimates that the midpoint for the proxy group would now be 9.7 percent (about 10-20 basis points less) based upon the decline in interest rates – which is somewhat counterbalanced by resulting increased risk premium.[234]

Dr. Morin then adjusted his recommendation 100 basis points upwards from the midpoint of his proxy statistical range to account for the Company's higher degree of risk compared to the average peer utility.[235] Dr. Morin found that SDG&E's "very high level of business, regulatory, and financial risks compared to the proxy group of companies" was buttressed primarily by three benchmarks:

- Sempra Energy's significantly higher beta risk measure compared to the peer group;

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233 Morin/SDG&E Exh. SDG&E-04 at 54.

234 Morin/SDG&E Tr. V.2:317-318 (describing his ability to estimate this decline based upon his 40 years of experience).

235 Morin/SDG&E Exh. SDG&E-04 at 59.

- Sempra's a higher than average DCF cost of equity risk results compared to the proxy group; and
- SDG&E's multiple-notch credit rating downgrades over the last two years, which demonstrate SDG&E's "unresolved risk."[236]

Dr. Morin quantified this additional risk by comparing Sempra Energy's beta of 0.75 relative to the proxy group average of 0.6. Beta is a measure of the systematic risk of an individual stock in comparison to the unsystematic risk of the market as a whole.[237] Sempra's beta is 0.15 higher than the average of his proxy group (0.75 compared to 0.60), indicating that the return differential should be 0.15 multiplied by the market risk premium of 6.9%, or 100 basis points, resulting in Dr. Morin's 10.9 percent recommendation.[238]

Dr. Morin emphasized that, if anything, Sempra Energy's beta diversified does not fully capture the risks to SDG&E because Sempra is a multiactivity, diversified company, with multiple less risky subsidiaries. So SDG&E's risks will not be fully reflected in market data.[239] As Dr. Morin states, "if SDG&E were a publicly-traded stand-alone entity, its beta would be much higher," similar "to that of high-risk cyclical industrial companies, as suggested in the testimony of Concentric Energy Advisors in this proceeding."[240]

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[236] Morin/SDG&E Tr. V.2:192-93; 265.

[237] Morin/SDG&E Exh. SDG&E-04 at 33-34.

[238] *Id.* at 59; *see also* Morin/SDG&E Tr. V.2:195. Dr. Morin's ROE recommendation would become 10.7% once his estimate of the effect of the decline in interest rates is taken into account. Morin/SDG&E Tr. V.2:270.

[239] Morin/SDG&E Tr. V.2:193; *see also* McCann/EDF Tr. V.6:1030:25-26 (stating that "SDG&E is a relatively minor factor in Sempra's overall holdings.").

[240] Morin/SDG&E Exh. SDG&E-04 at 55 (citation omitted); *see also* Morin/SDG&E Tr. V.2:267 (stating that Dr. Morin believes that the other Sempra Energy subsidiaries would have a beta below 0.75 to counterbalance SDG&E's higher beta).

2. Concentric's Quantification of SDG&E's Unique Wildfire Risks

Concentric similarly concludes that "typical cost of capital models and approaches" like standard proxy-based models, are, when standing alone, "ill-suited" for the "extraordinary circumstances" facing SDG&E and other California utilities from the potential for significant wildfire-related liability because the risks are not shared by non-California utilities in Dr. Morin's peer group.[241] Accordingly, Concentric's analyses are "designed to measure greater shareholder risk generally, and the specific wildfire risks of SDG&E, and the impacts of these risks on SDG&E's cost of equity."[242] While Concentric analyzed a variety of different methods to capture this unique risk, their proposal is based on three approaches:

- An "Estimated Loss Approach," estimating the earnings necessary to make up for the risk of shareholder wildfire loss;
- A wildfire "Insurance Approach," measuring how much it costs for SDG&E shareholders to bear the risk of wildfire liability as measured by the premiums that the Company pays to insurance companies;
- And a "catastrophe ("CAT") Bond Approach," that uses CAT bond spreads as an additional measure of the equivalent cost to shareholders to bear wildfire liability risk.[243]

Concentric found that these "[a]pproaches most reliably indicate the incremental cost of equity for SDG&E for its risks that are not reflected in Dr. Morin's analysis for the proxy group utilities."[244]

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[241] Concentric/SDG&E Exh. SDG&E-05, Ch. 1 at 6-7.

[242] *Id.* at 6; *see also* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 2-3 (summarizing key conclusions).

[243] Concentric/SDG&E Exh. SDG&E-05, Ch. 1 at 7-8, 50-53.

[244] *Id.* at 8; *see also* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 7 ("Dr. Morin's proxy group does not include any other companies that are subject to the same level of business risk associated with catastrophic wildfire liabilities as the Company, nor the regulatory risk associated with inability to recover liabilities that California utilities are subject to under the doctrine of inverse condemnation.").

Following AB 1054's passage, Concentric lowered their wildfire risk assessment by nearly 200 basis points after re-running their approaches to account for AB 1054's wildfire fund cap and revised prudency standard – while considering the risks to the fund's solvency and uncertainty regarding how the prudency standard will be applied.[245] Concentric assessed two scenarios based upon Filsinger's "variable prudency" assumption discussed above: (1) an assumption of a finding of imprudence by the Commission 70 percent of the time (based upon the first three-year period of Filsinger's variable prudency assumption); and (2) an assumption of a finding of imprudence 50 percent of the time (based upon Filsinger's variable prudency assumption over a 10-year period).[246] Concentric also assumed a "conditional probability of 25 percent that the Wildfire Fund will be insolvent for SDG&E's modeled fire scenarios."[247]

Concentric's Estimated Loss Approach takes the Company's modeled risk of expected wildfire financial loss and determines "the earnings required to offset" the projected average wildfire loss above the Company's $1.5 billion in wildfire insurance coverage.[248] The wildfire risk model results in a 5.33 percent probability in any given year (about a one-in-20 year event) of a $1.5 billion or greater financial loss, with the average for such a loss being $3.68 billion.[249]

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245 Concentric/SDG&E Exh. SDG&E-05-S, Ch. 1 at 5-7; *id.* at 8-9 (noting that Concentric's revised recommendation following AB 1054's passage is a 57 percent reduction from their original estimate).

246 Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 46. As noted, Concentric believes that it provided a reasonable range, based on the fact that the Governor's office had it prepared for it, and Moody's and investors are relying upon that assumption. Coyne/Reed/SDG&E Tr. V.4:752, 762-763. By comparison, prior to AB 1054's passage Concentric assumed that SDG&E would be found liable 100% of the time, based upon the WEMA precedent. *See* Concentric/SDG&E Exh. SDG&E-05-S, Ch. 1 at 10.

247 Concentric/SDG&E Exh. SDG&E-05-S, Ch. 1 at 10-11 (stating that they believe that a 25% likelihood of uncertainty is an "appropriately cautious" assessment that not every one of Filsinger's four assumptions will occur as Filsinger predicted).

248 Concentric/SDG&E Exh. SDG&E-05, Ch. 1 at 50.

249 *Id.* at 35.

Concentric first assumes that $1.5 billion of such a loss would be reimbursed through insurance policies and that SDG&E could recover the portion of liabilities subject to FERC review. They then applied Filsinger's three and 10-year variable prudency assumptions (a 70 percent probability and 50 percent chance probability of an imprudence finding) to the portion of liability below the wildfire fund's cap – and those same imprudence probabilities to the 25 percent chance of fund insolvency – to the remaining liability that would be subject to Commission review to determine the estimated potential annual loss to shareholders.[250]

Concentric's Insurance Approach translates the premium insurance companies are requiring to insure SDG&E's wildfire liability into a risk premium for the additional risk borne by shareholders of a projected average wildfire event above the Company's insurance coverage.[251] As Concentric states,"[g]iven that the insurance industry provides a clear price signal for the cost required to bear the risk of wildfire liabilities, insurance premiums provide a suitable proxy for the incremental risk premium investors require to invest in the Company.[252]

Concentric's CAT Bond Approach similarly measures the premium that CAT bond investors are requiring to bear the risk of wildfire liability relative to a three-year U.S. Treasury note as a separate "market measure of the equivalent premium that investors require to self-insure the remaining potential shareholder liability."[253] With the Insurance and CAT Bond Approaches, Concentric applies the same assumptions regarding variable prudency and wildfire fund solvency to SDG&E's wildfire modeling to determine the amount of wildfire damages that

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[250] Concentric/SDG&E Exh. SDG&E-05-S, Ch. 1 at 12-15.

[251] *Id.* at 14-17.

[252] *Id.* at 14 (citing Ex. SDG&E-05 (Concentric) Ch. 1 at 40-41).

[253] *Id.* at 17.

the Company's shareholders would be responsible for, and then applies SDG&E's insurance and CAT bond pricing to determine the equivalent premium shareholders would require to effectively self-insure the amount of wildfire risk above the Company's current insurance.[254] These are market-based measures of the true cost of SDG&E's incremental wildfire risk following AB 1054's passage. Based on these scenarios, Concentric recommends a 1.48% risk adjustment to SDG&E's ROE proposal.[255]

SDG&E's overall ROE proposal is based upon Dr. Morin and Concentric's combined recommendations.[256] Dr. Morin and Concentric agree that, standing alone, Dr. Morin's recommendation does not fully account for SDG&E's risks because:

- A proxy group of non-California utilities does not share SDG&E's wildfire risk; and
- As a diversified company, Sempra's market data such as beta and DCF understates the full extent of SDG&E's risk.

In addition, investors view California utilities as riskier than average even if wildfire liability risk is completely removed.[257] Quantifying SDG&E's wildfire liability risk based upon the Company's own internal modeling of wildfire loss and how the insurance industry and bond markets price that risk, in combination with Dr. Morin's traditional peer group review approach, more accurately captures the Company's cost of equity.

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[254] *Id.* at 15.

[255] *Id.* at 21.

[256] *See* Folkmann/SDG&E Exh. SDG&E-01-S at 14.

[257] *See id.* at 19 (citing Concentric/SDG&E Exh. SDG&E-05, Ch. 1 at 48); *see also* Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 2 (discussing SDG&E's risks from elevated political risk and public scrutiny and demanding public policy goals).

TABLE 5: SDG&E'S ROE PROPOSAL

Source	ROE Proposal
Dr. Morin Traditional ROE Proposal	10.9%
Concentric Wildfire Premium	1.48%
Overall ROE Proposal	12.38%

C. Intervenors' Recommendations Treat SDG&E as if The Company Faces Below-Average Risks and Should be Rejected

1. Intervenors Admit That Returns Must Be Set Commensurate with Risks Yet Propose Below Average ROEs for SDG&E

By contrast, intervenors' ROE proposals all suffer from the same fatal flaw. Intervenors agree that SDG&E's return must be set commensurate with risks.[258] That is the greater the risk, the greater the return.[259] In making this assessment, all risks must be considered.[260] And it is a sliding scale – meaning that a utility of above-average risk should have a higher ROE than an average or below risk utility.[261] As Mr. O'Donnell states, "if you're above average risk, you should be above the national average."[262]

Multiple intervenors likewise acknowledge that RRA, in their annual and semi-annual review of nationwide rate case decisions, found that the authorized ROE for all electric utility

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[258] Gorman/TURN Tr. V.3:393-94; O'Donnell/FEA Tr. V.3:358.

[259] Griffing/UCAN Exh. UCAN/POC-01 at 8.

[260] Griffing/UCAN Tr. V.6:978.

[261] O'Donnell/FEA Tr. V.3:359; Gorman/TURN Tr. V.3:393-94.

[262] O'Donnell/FEA Tr. V.3:363:26-28.

cases was 9.59% for 2018 and 9.66% for 2019[263] – a slight increase.[264] In addition to multiple intervenors citing these RRA reports, Mr. Rothschild states that it is his "understanding of investors that invest in utilities companies, [that] they have access and review those [RRA] reports."[265]

Moreover, several intervenors admit that inverse condemnation makes SDG&E and other California electric utilities riskier than utilities nationwide.

- **O'Donnell:** Inverse condemnation "does make an investment in a [California utility] more risky, as a whole, than an investment in a utility that operates in a state without such liability risk;"[266]
- **O'Donnell:** "I understand and accept the fact that SDG&E has a higher level of risk due to inverse condemnation and the ongoing threat of wildfires;"[267]

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263 S&P Global, *RRA Regulatory Focus, Major Rate Case Decisions – January – December 2018* (January 31, 2019) ("RRA Jan 31, 2019 Report"), Exh. SDG&E-25-C; S&P Global, *RRA Regulatory Focus, Major Rate Case Decisions – January – July 2019* (July 22, 2019), Exh. SDG&E-26-C; *see also* O'Donnell/FEA Tr. V.3:361 (agree that those averages are correct); *see also* Morin/SDG&E Exh. SDG&E-09 at 6-7 (stating that the average authorized ROEs in the vertically integrated electric utility industry in 2018 and 2019 as reported in the Regulatory Research Associates quarterly review are in the 9.6% - 9.8% range).

264 O'Donnell/FEA Tr. V.3:362.

265 Rothschild/PAO Tr. V.4:662:19-21. Notably, several intervenors remove certain cases from the RRA data set to assert that the average allowed ROE in 2018 and 2019 is slightly lower than reported by RRA. *See, e.g.*, Griffing/UCAN Tr. V.6:991-992 (admitting that he removed all settled rate cases to claim a national authorized ROE average of 9.6% for 2018 and 9.44% for 2019, despite acknowledging that settled rate cases must be "be consistent with the record developed in the proceeding." Even then, Dr. Griffing's alleged averages for 2018 and 2019 are inconsistent with RRA's "fully litigated" case averages of 9.63% for 2018 and 9.56% for 2019); Gorman/TURN Exh. EPUC/IS/TURN-01 p. VIII, Exhibit MPG-11 (stating that the average authorized ROE for 2018 as provided by RRA is 9.55% and 9.57% after Mr. Gorman removed "limited-issue rider cases"). *But see* Gorman/TURN Exh. EPUC/IS/TURN-01 p. II-3 (asserting the industry authorized ROE for 2019 is "about 9.6%.").

266 O'Donnell/FEA Exh. FEA-01 at 41; *accord* Tr. V.3:363:21-24 (agreeing that a "California utility is more risky than the average utility outside of the state" because of "inverse condemnation.").

267 O'Donnell/FEA Exh. FEA-01 at 57.

- **Gorman:** SDG&E and other California utilities have faced credit rating downgrades as a result of "wildfire risk unique to California."[268]

And Mr. Gorman admits that those credit rating downgrades for SDG&E have come despite the Company not facing any significant wildfire liability for 2017 or 2018.[269]

Yet all intervenors propose ROEs that are to varying degrees below the current national allowed average for electric utilities; in other words an ROE that would be more appropriate for a utility of below average risk.

- **Aaron Rothschild, PAO:** proposes an ROE of 8.49 percent – while admitting that he is not aware of *any* ROE set that low for an electric or combined gas and electric utility in 2018 or 2019 – and agreeing that such an ROE would be over 100 basis points *below* the current allowed national average[270] – which would result in SDG&E having the lowest allowed ROE in the country;
- **Dr. Marlon Griffing, UCAN/POC:** admits that his recommendation of 9.15 percent would put SDG&E "among the low end of ROEs for U.S. electric operating companies;"[271]
- **O'Donnell:** repeatedly states that SDG&E is riskier than national utilities and is incorporating a wildfire risk adder into his proposal – before proposing a ROE for SDG&E of 9.5% that is below the currently authorized national average;[272]

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268 TURN/Gorman Exh. EPUC/IS/TURN-01 at V-10.

269 TURN/Gorman Tr. V.3:394-95.

270 Rothschild/PAO Tr. V.4:639-41; *see also* Morin/SDG&E Exh. SDG&E-09 at 4 (stating that he is not aware of any allowed return near Mr. Rothschild's recommendation, which is "even more galling when considering the fact that SDG&E is among the riskiest, if not the riskiest, electric utility in the industry at this time.").

271 Griffing/UCAN Exh. UCAN/POC-01 at 47; *see also* Morin/SDG&E Exh. SDG&E-09 at 37 ("Dr. Griffing recommends a ROE of 9.15% for SDG&E, which I believe would be among the lowest authorized return in the vertically integrated electric utility industry, despite the fact that SDG&E's risk exceeds the average risk in the electric utility industry at this time." (citation omitted)).

272 O'Donnell/FEA Exh. FEA-01 at 64, Table 25; *see also* O'Donnell/FEA Tr. V.3:361-362 (agreeing that the average authorized ROE for electric utilities has slightly increased in 2019 compared to 2018).

Even Mr. Gorman's suggested wildfire "risk premium" of 0.65 percent puts his ROE recommendation at 9.65 percent – just below the 2019 allowed national average – making it hardly a risk premium at all.[273]

These proposals not only ignore all the record evidence to the contrary – including the exceptional threat that SDG&E and other California utilities face from, among other things, the increased threat of wildfires, inverse condemnation, and outlier prudency review – they ignore the intervenors' own admonitions that return must be set consistent with risk. As Concentric states, "[a]ll else equal, given the choice between a company with a low probability of wildfire costs being borne by shareholders, and a company with a high probability of wildfire costs being borne by shareholders, an equity investor will have different return requirements for an investment in each company."[274]

2. Once Intervenors' ROE Proposals Modeling Errors Are Corrected, Intervenors' Proposals are Near or Above Dr. Morin's Recommendation

Worse, as Dr. Morin ably demonstrated in his rebuttal testimony, once modeling flaws are corrected, the intervenors' ROE recommendations are generally near or above that offered by Dr. Morin. Those errors include the following:

Failure to use ECAPM: As Dr. Morin establishes, the empirical CAPM ("ECAPM") model has been proven to be more accurate – as the traditional CAPM "underestimates the return required from low-beta securities and overstates the return from high-beta securities."[275] Dr.

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273 *Compare* Gorman/TURN Exh. EPUC/IS/TURN at II-Ex. MPG-3 (proposing an ROE for SDG&E of 9.65%), *with id.* at pp. V-10-11, Table 10 (seemingly attempting to disavow his proposed .65% wildfire risk premium).

274 Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 20.

275 Morin/SDG&E Exh. SDG&E-09 at 23.

Griffing acknowledges that he has applied the ECAPM method at least 11 times.[276] Application of the ECAPM method raises the intervenors' CAPM recommendations by a minimum of 50 basis points.[277]

Use of the Sustainable Growth Method: This method is inherently flawed in estimating the cost of equity for a regulated utility because it is logically circular. It requires an analyst to assume the answer by making an assumption about the expected profitability of a regulated entity – when that entity can only achieve that level of profitability if its ROE is authorized at that level.[278] In other words, it makes little sense to assume that a regulated utility will earn a 10.5 percent return and then recommend a 9 percent return.[279] Dr. Morin notes that multiple intervenors gave no weight to this method.[280]

Failure to Use an Accurate Market Risk Premium: Dr. Morin's market risk premium ("MRP") forecast of 6.9% is consistent with the vast literature on the subject and has been used by him many years.[281] By contrast, certain intervenors' use of survey data to establish the MRP is problematic "because they are not reliable," very time dependent, and dependent on the measure of return being surveyed.[282]

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[276] Griffing/UCAN Tr. V.6:977.

[277] *See, e.g.* Morin/SDG&E Exh. SDG&E-09 at 8.

[278] Morin/SDG&E Tr. V.2:202.

[279] *Id.* at 202-203.

[280] *Id.* at 205.

[281] Morin/SDG&E Exh. SDG&E-09 at 61-63; Morin/SDG&E Tr. V.2:256.

[282] Morin/SDG&E Tr. V.2:257; *see also* Villadsen/SCE Tr. V.2:325:11-20 ("And as we also heard from Dr. Morin, there's a number of difficulties using surveys. We don't know what it is these individuals respond to . . . we don't know who responds to it. It's self selection who responds to these surveys. As I discuss in my rebuttal testimony, there's academic literature that talks about why surveys are very doubtful.").

Failure to Include Flotation Costs: Flotation costs reflect the payments a company must make to an underwriter to issue new stock. It is the equivalent to closing costs when buying a home.[283] The basic logic is that, to produce the return on equity required by investors, ROE must be increased by 20 basis points or the company will never net the full required return once flotation costs are incurred.[284] Notably, Dr. Griffing also supports their inclusion.[285]

Misguided Focus on Book Value: As Dr. Morin testified, book value is irrelevant in setting ROE. Stock prices are set by the market, not regulation.[286] "Utilities have been trading [above] book value for 30 years."[287] The market for capital investment is a competitive one.[288] If the Commission unilaterally set SDG&E's ROE at book value it would take a "masochist[]" to invest in SDG&E stock when that investor could invest in other utility stocks trading above book value.[289] As Dr. Morin states, "[i]f utility stocks have market-to-book ratios of one and everybody else has a two or three on the overall stock market, you're going to be at a disadvantage in terms of attracting capital."[290] Instead "[r]egulators should set the rate of return equal to the cost of equity regardless of the market-to-book ratio which is determined by the marketplace."[291]

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[283] Morin/SDG&E Exh. SDG&E-09 at 12.

[284] Morin/SDG&E Tr. V.2:303-04; *see generally* Morin/SDG&E Exh. SDG&E-04 at Appendix B (discussing the academic and empirical literature on the need for flotation costs).

[285] *See* Morin/SDG&E Exh. SDG&E-09 at 39.

[286] *Id.* at 32; *see also* Morin/SDG&E Tr. V.2:211:7 ("The market sets the stock price.").

[287] Morin/SDG&E Tr. V.2:211:2-3; *accord id*. at 298:20-23.

[288] Morin/SDG&E Exh. SDG&E-09 at 34.

[289] *See* Morin/SDG&E Tr. V.2:298.

[290] *Id.* at 299:16-20.

[291] *Id.* at 298:17-20.

Incorrect Choice of The Risk-Free Rate: Although intervenors criticize using interest rate forecasts from a group of professional government and private organizations to set the risk-free rate because those forecasts have been too high in the past, Dr. Morin convincingly provides three reasons that such forecasts should be used in setting the risk-free rate in CAPM.[292] First, financial models are forward looking in nature.[293] Dr. Morin relies upon interest rate forecasts from professional forecasters because, as published academic studies show, regardless of whether those forecasts turn out to be accurate, those forecasts are reflected in investor expectations and embedded in stock prices.[294] This is the same reasoning as to why multiple intervenor experts rely upon analyst growth forecasts in their DCF modeling.[295]

Second, rates are being set for the future, so it is appropriate to rely upon future interest rate expectations.[296] Third, if one applies current interest rates of around two percent to the CAPM model, the CAPM model will produce cost of equity estimates of around five percent.[297] As a practical matter, such a result cannot be accurate because it is inconsistent with observable data. It suggests that the cost of equity is nearly equal to the cost of debt – which would indicate

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292 *Id.* at 254.

293 *Id.*

294 *Id.* at 254-255; *see also* Morin/SDG&E Exh. SDG&E-04 at 20; Morin/SDG&E Exh. SDG&E-09 at 17-18, 43, 69.

295 *See* Morin/SDG&E Exh. SDG&E-09 at 78 (noting how Gorman relies upon wide variety of analyst growth forecasts but ignored those same sources for forecasts of risk-free rate); *see also id.* at 50 (noting how Mr. O'Donnell's DCF estimate is incorrect because it does not use analyst growth forecasts); Morin/SDG&E Exh. SDG&E-04 at 20 (noting that there is considerable empirical evidence in the academic literature that support the superiority of analysts' forecasts of earnings per share as measures of investor expectations).

296 Morin/SDG&E Tr. V.2:254.

297 *Id.* at 255.

that investors should be flocking to long-term debt, given that debt is a safer investment.[298] This is not what is being observed in reality.

Dr. Morin acknowledges that, since conducting his analysis in early 2019, interest rates have declined.[299] He believes that this would result in a relatively minor 10-20 basis point difference in his proposal, with the average ROE for his peer group going from 9.9 to 9.7, meaning that his ROE recommendation for SDG&E would go from 10.9 to 10.7 once his 100 basis point risk premium is included.[300] As Dr. Morin indicates, any decline resulting from interest rates is somewhat offset by an increase in the risk premium. In other words, there is an inverse relationship between interest rates and risk premium. As interest rates decline, the risk premium increases because investors become less willing to undertake equity investments and need a higher premium to do so.[301]

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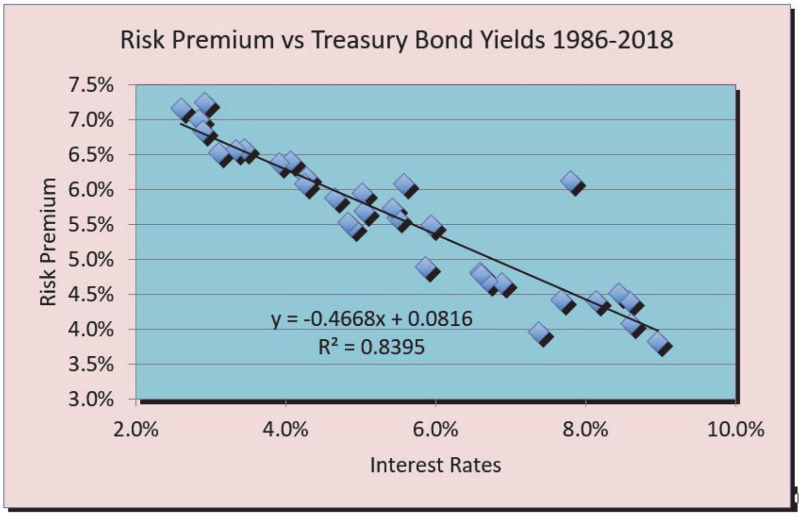
[298] *Id.*; *see also* Concentric/SDG&E Exh. SDG&E-12 at 16 ("Equity financing carries no repayment obligation and is therefore much riskier than a debt investor's position.").

[299] Morin/SDG&E Tr. V.2:263:8-14 ("Short-term treasury bill rates have come down prompted by the Federal Reserve action. The long-term rates have also come down by a much lesser extent, but they have come down. The forecast that I use here have also come down a little bit for the long term."); *see also id.* at 272:21-23 ("[W]henever there's lower interest rates, there's a surge toward dividend-paying utility stocks.").

[300] Morin/SDG&E Tr. V.2:263; *accord id.* at 270:6-16 ("Q: So just to clarify, what would your revised recommendation be for SDG&E if you re-ran your analysis now? A: 9.7. Q: How about [] the overall [recommendation] once your [risk] premium is included? A: 10.7"). Dr. Morin did not update his modeling in supplemental testimony, because the supplemental testimony was solely "regarding the passage of Assembly Bill 1054" and Dr. Morin's revised estimates are because of a decline in interest rates, not because of AB 1054's passage.

[301] Morin/SDG&E Exh. SDG&E-04 at 46-47; Morin/SDG&E Exh. SDG&E-09 at 82.



So if an analyst relies upon a lower long-term interest rate, they have to increase their risk premium.[302] The Commission recognizes this inverse relationship and the fact that the cost of equity does not move in tandem with interest rates, with a long-standing practice of adjusting the cost of equity by one-half to two-thirds relative to the change in bond yields.[303]

The decline in interest rates also does not account the risks unique to California – including the multiple credit rating downgrades for SDG&E that occurred after Dr. Morin conducted his analysis.[304] Nevertheless, Dr. Morin's revised estimate of a 10.7 percent ROE for SDG&E based upon the changed interest rate environment demonstrates his sound judgment and willingness to accept the record evidence as-is – compared to intervenors ignoring SDG&E's unique and above-average risks.

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302 Morin/SDG&E Exh. SDG&E-09 at 82 (noting that Mr. Gorman failed to make this adjustment); *accord* Vilbert/PG&E Tr. V.4:579.

303 *See* D.99-06-057 at 49-50 ("the Commission has had a practice of only adjusting rate of return by one half to two thirds of the change in the benchmark interest rate.") (citing D.94-11-076).

304 *See* Widjaja/SDG&E Exh. SDG&E-03 at 12, Table 1 (listing credit rating downgrades for SDG&E by Fitch and Moody's in March after Dr. Morin conducted his study).

3. Intervenors Ignore SDG&E's Wildfire Risks and/or Overstate AB 1054's Impact

To that end, intervenors also either try to ignore the full impact of California's wildfire liability risk on SDG&E's cost of capital or overstate AB 1054's risk reduction impacts. For instance, Mr. O'Donnell contends that AB 1054 should "alleviate many of the concerns regarding prudency and, based on reactions by the credit agencies as discussed below, is very much welcomed by the financial community."[305] But Mr. O'Donnell acknowledges that Moody's relies on Filsinger's assumption that 75 percent of wildfire cost recovery claims will be found imprudent in 2020 – a far cry from Mr. O'Donnell's other acknowledgement that he is not aware of FERC disallowing a claim for wildfire cost recovery.[306]

And, as detailed above, credit rating agencies see continuing uncertainty in how AB 1054's revised prudency standard will be applied. As Moody's states in its July 29, 2019 report – a report Mr. O'Donnell relies upon – "[f]ailure to successfully implement the provision[s] of AB 1054 associated with the insurance fund in a consistent and credit supported manner [would] likely trigger negative momentum on SDG&E's [credit] rating."[307] In fact, Mr. O'Donnell acknowledges that SDG&E faces an equal chance of another credit downgrade as it does of an upgrade.[308]

Mr. Gorman similarly admits that it was a "stretch" by him to say that AB 1054 "fully mitigated shareholder risk arising from California wildfires," acknowledging that RRA reduced

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305 O'Donnell/FEA Exh. FEA-02 at 11.

306 O'Donnell/FEA Tr. V.3:370-71, 377.

307 *Id.* at 371:8-15.

308 *Id.* at 371:20-21.

its rating of California's regulatory environment following AB 1054's passage.[309] As noted, Mr. Gorman proposes a wildfire risk "premium," based upon what he states is the spread between A-rated utility bonds and Baa-rated utility bonds.[310] But the cost of debt is less than the cost of equity.[311] Moreover, as Concentric notes, "equity investors bear the residual risk associated with ownership, and have a claim on cash flows only after debt holders are paid."[312] Mr. Gorman's suggestion is thus an "incomplete measure of the risks borne by equity investors" because "credit rating agencies clearly anticipated that some form of wildfire liability relief would be enacted and held off on further downgrades of California utility debt until the degree of relief was known."[313]

Some intervenors go even farther and try to ignore ongoing wildfire risks assessments. For example, Dr. Richard Pavolvic on behalf of UCAN/POC attempts to claim that AB 1054 "fully mitigates SDG&E wildfire business, financial and regulatory risk."[314] Dr. Pavolvic further asserts that "[i]t appears that the rating agencies['] interests have moved on from wildfire risk mitigation."[315] But as detailed above, while AB 1054 is a significant improvement, SDG&E continues to face risks both in AB 1054's implementation and from the ongoing threat of

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[309] *Compare* Gorman/TURN Tr. V.3:398:19 – 399:21, *with* Gorman/TURN Exh. EPUC/IS/TURN-01 p. V-1.

[310] *See* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 15 (citing Gorman/TURN Exh. EPUC/IS/TURN-01 at V-10:11 to V-11:8).

[311] D.12-12-034 at 8 ("[C]ommon equity financing is more costly than long-term debt and preferred stock financing.").

[312] Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 16.

[313] *Id.* at 11-12 (citing S&P, Credit FAQ, Feb. 19, 2019, Exh. SCE-16).

[314] Pavlovic/UCAN Exh. UCAN/POC-07 at 2.

[315] *Id.* at 8.

wildfires and inverse condemnation – as credit rating agencies continue to recognize. In fact, Dr. Pavlovic acknowledges that:

- RRA lowered its ranking of the California regulatory environment a month after AB 1054's passage;
- Moody's on August 2, 2019 listed four ongoing credit challenges for SDG&E, one of which is the execution risk of the implementation of the revised prudency standard; and
- Moody's on August 6, 2019 stated that it did not view AB 1054 as a "complete" solution to California's wildfire liability risks.[316]

At other times, Dr. Pavlovic asserts that "credit ratings cannot be relied upon as probative evidence of SDG&E's business, financial, and regulatory risk."[317] But Dr. Pavlovic himself then admits that the cost of debt is based upon credit ratings (regardless of whether one agrees with their rating),[318] and that Dr. Pavlovic himself takes credit rating agency assessments "into consideration in terms of my assessment of what the risk is."[319]

SDG&E's recent experience also refutes the claim from certain intervenors that wildfire risk is simply an issue of utility management.[320] As discussed, SDG&E is widely acclaimed for its "track record of effective wildfire mitigation."[321] The Company has made "significant investments" to "mitigate and prevent" wildfire risks.[322] SDG&E has not been involved in any

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316 Pavolvic/UCAN V.6:1001-1005; *see also* Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 5 (stating that "it remains to be seen how challenging it will be for the intervenors to create serious doubt, an undefined term and subject to the CPUC's interpretation.").

317 Pavlovic/UCAN Exh. UCAN/POC-07 at 2.

318 Pavolvic/UCAN Tr. V.6:997.

319 *Id.* at 998:13-15.

320 *See* Folkmann/SDG&E Exh. SDG&E-07 at 7.

321 Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 1.

322 *Id.* at 5.

significant utility-related wildfires in 2017 or 2018. Indeed, SDG&E has not been involved in a significant wildfire since 2007.[323]

Nevertheless, the Company's credit rating has still been downgraded multiple notches due to California's wildfire liability regime. As noted, S&P explicitly specified it was downgrading SDG&E's business risk from "excellent" to "strong" *despite* SDG&E having excellent operational management.[324] So despite SDG&E's best efforts, the Company faces a higher cost of capital because of the regulatory environment, evidenced by, among other things, Sempra Energy's higher beta, higher DCF, and SDG&E's multiple credit rating downgrades.[325]

Nor can the risk from wildfire liability be quantified simply by comparing SDG&E's credit rating to the credit rating of utilities in other states.[326] Multiple factors influence overall credit score, including the size of the company and the company's financial leverage.[327] A better comparison is within California itself, comparing credit rating agency assessments of SDG&E before and after: (1) the Commission's 2017 WEMA decision; and (2) the 2017-2018 wildfires.[328] Such a comparison amply demonstrates that credit rating agencies now view

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[323] S&P Feb. 21, 2019 Report, Exh. SCE-16 at 8.

[324] S&P Jan. 21, 2019 Report, Exh. PAO-03-C at 3 (discussing S&P's assessment that inverse condemnation, combined with a California utility not having a "direct means to collect the wildfire costs from its ratepayers" is "inconsistent with an excellent business risk profile assessment."); *see also* Concentric/SDG&E Exh. SDG&E-05, Ch. 2 at 18 ("[A]s the ratings agencies have repeatedly stated, the overall regulatory risk in California is the main reason for the rating actions.").

[325] *See* Morin/SDG&E Tr. V.2:193-94; *see also* Concentric/SDG&E Exh. SDG&E-12, Ch. 1 at 12 ("The Company has a highly regarded wildfire mitigation program and has not been involved in a substantial wildfire since 2007. Yet it has experienced multiple credit rating downgrades and a higher cost of equity because of the overall regulatory environment.").

[326] *See, e.g.*, Hern/IEI Tr. V.4:617.

[327] Hern/IEI Tr. V.4:617.

[328] *Id.* at 618.

SDG&E and other California utilities as facing unique risks from the State's wildfire liability regime that do not apply in other states.[329]

This change in credit rating assessments also underscore how this is a newly recognized risk that was not factored in to the 2012 cost of capital proceeding. Again, although inverse condemnation applied to California utilities prior to 2012, investor expectations were reset by the WEMA decision and the 2017-2018 wildfires. Those events signaled to investors that: "(1) wildfires of this size and magnitude could be the new normal; and (2) California utilities face a significant threat of being both responsible for significant costs under inverse condemnation *and* being unable to recover those costs under the Commission's prudency review" when they would be able to in other jurisdictions.[330]

In fact, the Commission's 2012 decision explicitly specified that it was *not* compensating investors with a higher ROE for wildfire risks because "none of the credit agencies reporting on the creditworthiness of either SCE or SDG&E mentioned any risks associated with wildfires."[331] That is obviously the exact opposite from the situation today, with extensive credit rating agency focus on California's wildfire liability regime.[332] In other words:

- In D.12-12-034, with SDG&E having an S&P 'A' credit rating, the Commission placed SDG&E's ROE around the 2012 national average;[333]

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[329] *Id.* at 615-17 (noting that, before late 2017, California utilities were treated similar to utilities in other states, but the scale of recent wildfires and WEMA decision changed perception of risk environment.).

[330] Folkmann/SDG&E Exh. SDG&E-11 at 3; *accord* Moody's Aug. 6, 2019 Report, Exh. SDG&E-24-C at 2.

[331] D.12-12-034 at 30 (citation omitted).

[332] *See* Folkmann/SDG&E Exh. SDG&E-07 at 15; Folkmann/SDG&E Exh. SDG&E-11 at 3.

[333] *Compare* D.12-12-034 at 40 (setting SDG&E's ROE at 10.30%), *with* RRA Jan 31, 2019 Report, Exh. SDG&E-25-C at 6 (noting that the average ROE set in 2012 for composite gas and electric was 10.09%). Concededly, the Commission stated in D.12-12-034 that it believed it was setting

- Many of the risks cited in D.12-12-034 that justified the Company's ROE at that time have only increased;[334] and
- Those risks have been joined by the overarching threat from catastrophic wildfire liability.

So if SDG&E was considered around average risk with an S&P 'A' rating in 2012 and no credit rating agency focus on wildfire liability, it is self-evidently riskier now at 'BBB+,' with extensive credit rating agency discussion of the threat from California's wildfire liability regime; indicating that the Company's ROE must be adjusted upward for this unique risk.[335] As Mr. Folkmann testified, "[r]educing SDG&E's ROE below its current 10.20% (which is still within the range of ROEs granted for 2018-2019), would send exactly the wrong signal to credit agencies and equity markets."[336] The reasonableness of the authorized ROE and capital structure in this proceeding will thus have "clear implications" for the assessment of California's regulatory climate.[337]

IV. CAPITAL STRUCTURE

A company's capital structure is based on its ratio of: (i) common equity; (ii) long-term debt; and (iii) preferred stock (if applicable). The capital ratios, together with the embedded costs associated with each component, determine the company's weighted-average cost of capital

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SDG&E's ROE "slightly below the 10.36% average ROEs granted [to] United State electric utilities during the first six months of 2012." D.12-12-034 at 40.

334 *See, e.g.*, Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 6 ("Our analysis considers the significant demands that are placed on the California utilities, including many ambitious public policy initiatives that are implemented through utility operations.").

335 *See* Folkmann/SDG&E Exh. SDG&E-07 at 15.

336 *Id.* at 16 (citations omitted).

337 Morin/SDG&E Exh. SDG&E-09 at 9-10; *see also* Folkmann/SDG&E Exh. SDG&E-01-S at Appendix E, p. 1 (current SDG&E credit rating "assumes" a credit supportive outcome in this proceeding).

or authorized ROR.[338] An appropriate capital structure is a component of a fair and reasonable ROE and ROR.[339] The common equity element of a utility's capital structure represents the percentage of capital supplied by shareholders; the greater the common equity ratio, the more shareholders have at stake and the more they will require in return.[340] Long-term debt represents a measurement of a company's financial leverage.[341] Finally, preferred stock is issued in shares, similar to common equity, but receives preferential treatment for dividends.[342]

A debt ratio that is too low fails to take advantage of a tax-deductible source of financing that is lower-cost than equity.[343] However, a debt ratio that is too high (with an equity ratio that is too low) increases the risk of debt repayment to lenders, which could result in higher costs of capital over the long-term.[344] Both scenarios can negatively impact ratepayers. Thus, setting the appropriate capital structure is not as simple as increasing the debt ratio and decreasing the equity ratio – there is a point at which a company becomes too financially leveraged and its credit rating suffers as a result. As the Commission has observed, "as long-term debt ratios are increased, credit ratings tend to be downgraded which results in increased financial risks for common equity holders, thereby requiring greater returns on common equity [the costs of which are borne by ratepayers]."[345]

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338 Mekitarian/SDG&E Exh. SDG&E-02 at 1.

339 D.08-05-035 at 7-8.

340 Mekitarian/SDG&E Exh. SDG&E-02 at 2.

341 *Id.* at 2.

342 *Id.* at 3.

343 *Id.* at 2.

344 *Id.*

345 D.12-12-034 at 8-9.

Ms. Mekitarian explained, "[a]n optimal capital structure is one that supports a strong credit rating, lowering borrowing costs for the utility and ratepayers."[346] She noted that "[t]his generally involves a blend of debt and equity. Debt is generally less expensive than equity, due to its tax advantage and lower risk. But a high debt ratio increases financial risks because it means that a company has been aggressive in financing its growth with debt."[347] As a practical matter, a company with a high level of debt and fixed costs will require a higher return on both debt and equity since the earnings available to shareholders are more volatile and secondary to debt payments.[348] Thus, a company's authorized capital structure must include a ratio of debt to equity that is designed to provide a reasonable return in order to attract necessary capital. As the Commission has made clear, "[b]ecause the level of financial risk that the utilities face is determined in part by the proportion of their debt to permanent capital, or leverage, we must ensure that the utilities' adopted equity ratios are sufficient to maintain reasonable credit ratings and to attract capital."[349]

SDG&E's current authorized capital structure was adopted in D.12-12-034 and has not changed in seven years, notwithstanding significant downgrades to SDG&E's credit rating. SDG&E proposes a revised capital structure comprised of 56 percent common equity, 44 percent debt, and zero percent preferred stock – a change from the Company's currently authorized capital structure of 52 percent common equity, 45.25 percent debt, and 2.75 percent preferred stock.[350] As discussed in more detail below, SDG&E submits that this change in its capital

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346 Mekitarian/SDG&E Exh. SDG&E-02 at 3.

347 *Id.*

348 *Id.*

349 D.12-12-034 at 5.

350 Mekitarian/SDG&E Exh. SDG&E-02 at 3.

structure is necessary to reflect SDG&E's actual (recorded) capital structure since 2013, to facilitate SDG&E's management of its financial risks, and to improve its credit ratings.[351]

Until its recent downgrades due to the unprecedented business, financial, and regulatory risks currently faced by California utilities, SDG&E had always maintained a strong credit rating that benefitted ratepayers and shareholders alike.[352] SDG&E's historically strong credit rating has been the result of its effective and proactive management of its actual capital structure. As discussed in more detail below, this effective and proactive management continues today and is reflected in SDG&E's higher common equity layer, which has allowed SDG&E to maintain its high credit rating (until recent downgrades) and issue over $2 billion of long-term debt since the last cost of capital proceeding.[353] Mr. Folkmann noted that "SDG&E has been operating at or above a 56% equity percentage since 2015 . . . [and as] SDG&E has faced increased business risks, these higher than authorized equity levels have improved credit metrics by reducing debt throughout this period with capital provided by shareholders, directly benefitting customers and shareholders."[354] The higher common equity ratio established by SDG&E has allowed SDG&E to limit its financial risk and access the debt markets at more reasonable rates.[355] Accordingly, SDG&E's proposed capital structure, which reflects its actual capital structure, should be adopted by the Commission.

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351 *Id.*

352 *Id.* at 6.

353 *Id.*

354 Folkmann/SDG&E Exh. SDG&E-01 at 14.

355 Mekitarian/SDG&E Exh. SDG&E-02 at 6-7.

A. Commission Precedent Supports an Authorized Capital Structure That Reflects Actual Recorded Ratios

SDG&E's recommended change in its capital structure to increase its authorized common equity ratio and decrease long-term debt and preferred stock ratios is designed to reflect SDG&E's actual (recorded) capital structure.[356]

As reflected in the chart below, SDG&E's average recorded (actual) capital structure since 2013 has been more heavily weighted towards common equity than its authorized structure.[357] SDG&E retained earnings in common equity to balance the capital structure above its authorized common equity ratio of 52 percent.[358]

Table 6: SDG&E's Historical Capital Structure

	2013	2014	2015	2016	2017	2018	Current Authorized
Common Equity	53.39%	54.44%	57.55%	57.21%	55.61%	56.15%	52.00%
Long-Term Debt	46.61%	45.56%	42.45%	42.79%	44.39%	43.85%	45.25%
Preferred Stock	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.75%

SDG&E's proposal to align its authorized capital structure with its actual cap structure is consistent with Commission precedent in favor of approving an authorized capital structure that tracks a utility's actual ratios. The Commission noted in D.12-12-034 that it "has previously reasoned that the utilities should be given some discretion to manage their capitalization with a

[356] *Id.* at 4.

[357] *Id.* at 5 and Appendix B.

[358] *Id.* at 5.

view towards a balance between shareholders' interest, regulatory requirements, and ratepayers' interest."[359] In that proceeding, the Commission found that SDG&E's proposal for an authorized capital structure was consistent with its actual equity ratio and was reasonable.[360] Likewise, the Commission found in D.18-03-035 that it was reasonable to adopt authorized capital structures that reflected the relevant utilities' actual equity and debt ratios.[361] This policy in favor of adopting an authorized capital structure that aligns with a utility's actual capital structure was described in a 2017 Report issued by the Commission's Policy & Planning Division, which offered the guidance that "[i]n California, a hypothetical capital structure, which is expected to approximate the actual capital structure of the utility over the long run is used."[362]

B. The Proposed Capital Structure Helps SDG&E Manage its Financial Risks

A prudent financial manager must be proactive in managing and mitigating financial risk. Dr. Morin explained that lower financial risks (*i.e.*, lower debt) should be used to offset higher business risks.[363] He noted further that "SDG&E's capital structure should be more conservative than that of its peers in order to partially compensate for its higher business risks,"[364] and

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359 D.12-12-034 at 11 (citation omitted).

360 *Id.* ("SDG&E seeks a common equity ratio for its revenue requirement which is the same as its actual common equity ratio. We concur with SDG&E and find a 46.25% long-term debt, 2.75% preferred stock and 52.00% common equity capital structure reasonable and we adopt it.").

361 D.18-03-035 at 22.

362 California Public Utilities Commission, *Utility General Rate Case – A Manual for Regulatory Analysts* (November 13, 2017) at 29, *available at* https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Policy_and_Planning/PPD_Work/PPD_Work_Products_(2014_forward)/PPD%20General%20Rate%20Case%20Manual.pdf.

363 Morin/SDG&E Exh. SDG&E-04 at 62.

364 *Id.*

concluded that it "is clear from these multiple perspectives that SDG&E's 56% common equity ratio is barely adequate given its very high business risks."[365]

As noted, SDG&E's use of an actual equity ratio higher than its authorized one improved credit metrics by reducing debt and keeping SDG&E's capital costs reasonable relative to the costs associated with the authorized ratios. The major credit rating agencies quantify financial risk using key metrics such as funds from operations as a percent of total debt ("FFO-to-Total Debt")[366] and debt as a percentage of total capital ("Debt-to-Total Capital").[367] Each of these metrics is discussed below. The credit rating agencies use these financial metrics, along with their assessment of business risk and regulatory framework, to assign credit ratings.[368] Thus, the credit metric guidance provided by the credit rating agencies is an important tool for determining the appropriate use of debt.

Recent guidance regarding FFO-to-Total Debt suggest that a greater level of debt for SDG&E would be viewed negatively. In its March 14, 2019 credit opinion, Moody's specified a lower bound adjusted FFO-to-Total Debt ratio of 24 percent for SDG&E to avoid further downgrades from its current Baa1 rating.[369] In the same credit opinion, Moody's calculated adjusted FFO-to-Total Debt for SDG&E as of December 2018 of 25 percent.[370] Thus, in order

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[365] *Id.*

[366] "The FFO-to-Total Debt ratio measures funds from operations as a percent of total debt. It indicates how much of its debt a company could retire with annual cash from operations, where a higher figure indicates a stronger ability to retire its debt, and thus lower financial risk." Mekitarian/SDG&E Exh. SDG&E-02 at 9.

[367] *Id.* at 8.

[368] *Id.*

[369] Moody's Investors Service, *San Diego Gas and Electric Company, Update Following Downgrade to Baa1 Negative* (March 14, 2019) at 1.

[370] *Id.* at 1 and 7.

to maintain its strong adjusted FFO-to-Total Debt ratio, debt issued by SDG&E in order to fund the business will need to be countered with a higher equity ratio.[371]

With regard to the Debt-to-Total Capital metric, Moody's approach to assessing credit risk for regulated electric and gas utilities globally is described in its *Rating Methodology for Regulated Electric and Gas Utilities*, which provides a detailed rating grid that can be used as a reference tool to approximate credit profiles within the regulated electric and gas sector.[372] In her prepared direct testimony, Ms. Mekitarian presented the following table that replicates Moody's Debt Ratio benchmarks presented in the report.[373]

Table 7: Moody's Debt Ratio Benchmarks

Bond Rating	Debt / Capital[374]
Aaa	< 25%
Aa	25% - 35%
A	35% - 45%
Baa	45% - 55%
Ba	55% - 65%
B	65% - 75%
Caa	≥75%

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371 Mekitarian/SDG&E Exh. SDG&E-02 at 9.

372 *Id.* (citing Moody's Investors Service*, Rating Methodology for Regulated Electric and Gas Utilities* (June 23, 2017)).

373 *Id.* at 10, Table 4.

374 Ratios shown are for companies that Moody's has identified to have a standard risk profile. *Id.* at 10, n.17.

As Ms. Mekitarian notes, "[i]t is in the interest of ratepayers to preserve SDG&E's credit profile and maintain a strong balance sheet to support planned infrastructure growth."[375] Dr. Morin has emphasized the importance of SDG&E regaining its single 'A' bond rating for this purpose. He explains that, "[a] single A bond rating generally results in the lowest pre-tax cost of capital for regulated utilities, and therefore the lowest ratepayer burden, especially under adverse economic conditions" – the "[l]ong-term achievement/retention of a single A bond rating is in both a utility's and ratepayers' best interests."[376]

The table above shows that for SDG&E to return to a strong single 'A' bond rating, it must maintain a debt ratio in the range of 35 percent – 45 percent. This is consistent with SDG&E's actual/proposed debt ratio of 44 percent (with an equity ratio of 56 percent). As Dr. Morin adds, "[f]or a single A bond rating, which I consider optimal and cost efficient for ratepayers, the debt ratio range is 35% - 45%, implying a common equity ratio range of 55% - 65%. The Company's proposed common equity ratio is almost at the bottom of this range, notwithstanding the fact that its business risk far exceeds that of its peers."[377] As Dr. Morin points out, certain intervenors' focus on the common equity ratios of utility holding companies is not a relevant comparison.[378] Dr. Morin instead noted that the average common equity ratio for the operating utilities captured by his peer group is 53 percent - 54 percent, indicating that

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375 *Id.* at 7; *see also* D.12-12-034 at 7 ("SDG&E's capital structure is intended to preserve its strong 'A' investment grade credit rating of long-term debt, to attract long-term debt at low costs, and to maintain financial strength for the long-term management of its capital investment program.").

376 Morin/SDG&E Exh. SDG&E-04 at 62-63; *see also* Morin/SDG&E Tr. V.2:249:16-20 ("We got to do everything we can to get back to a single A bond rating because it's costing ratepayers an extra 10 million bucks for every hundred million dollars of capital raised.").

377 Morin/SDG&E Exh. SDG&E-04 at 61.

378 *See* Morin/SDG&E Exh. SDG&E-09 at 26.

SDG&E's 56 percent request is more than reasonable once the Company's higher risks compared to the peer group are taken into account.[379]

By contrast, debt utilization beyond the 35 percent to 45 percent range indicated by the target credit metrics defined above (*i.e.*, a debt ratio higher than the 44 percent proposed by SDG&E) would put downward pressure on SDG&E's credit rating. Accordingly, Dr. Morin concluded that "the Company's requested common equity ratio is reasonable as a partial offset to its heightened business risk and a necessary financial metric to regain a single A or above bond rating."[380]

As discussed above, SDG&E's credit rating downgrades have required the Company to take proactive steps to mitigate risk and ensure the stability of the Company. Ms. Mekitarian noted that the current downward pressure on SDG&E's credit rating "will be further exacerbated if the Company takes on additional financial risks, in the form of additional debt to fund its robust capital program and increased debt equivalence related to Power Purchase Agreements ("PPA") and Resource Adequacy ("RA") obligations."[381] Ms. Mekitarian explained that SDG&E's proposed capital structure is necessary to lessen financial risks to counterbalance both increased business risk from California's wildfire liability regime, as well as other non-wildfire risks that may increase the Company's debt.[382]

Ms. Mekitarian highlighted a few of these latter risks. She summarized SDG&E's risk related to debt equivalence associated with long-term PPAs (discussed above), and observed that

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379 *Id.* (citing Morin/SDG&E Exh. SDG&E-04 at 61).

380 *Id.* at 47.

381 Mekitarian/SDG&E Exh. SDG&E-02 at 11.

382 *Id.* at 7.

"these agreements will continue to negatively impact SDG&E's credit profile and must be appropriately factored into the authorized capital structure."[383] She pointed out that the Commission has acknowledged the risks associated with debt equivalence,[384] and that SDG&E's proposed capital structure (and ROE) are intended to comprehensively manage the impact of debt equivalence.

Ms. Mekitarian further explained that the elevated levels of capital investment detailed by Mr. Widjaja[385] will require substantial funding, both internally and externally, potentially through a combination of debt issuances, internally generated cash flow, and retained earnings by suspending its dividend payments.[386] And Ms. Mekitarian pointed out that a higher common equity ratio is necessary to counter the Tax Cuts and Jobs Act ("TCJA") of 2017 likely negative impact on utility credit ratings.[387] Notably, for the first time in its history, Moody's downgraded its outlook on the U.S. utility sector to "negative," citing lower cash flows and higher debt levels as federal tax reform and increased capital spending continued to weigh on the sector.[388]

C. SDG&E's Proposed Capital Structure is Credit Supportive

Moreover, recent credit rating agency publications signal that adoption of SDG&E's proposed capital structure – *i.e.*, authorization of the Company's continued use of a 56 percent

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383 *Id.* at 12.

384 *Id.* at 13 (citing as an example, California Public Utilities Commission, *An Introduction to Debt Equivalency* (August 4, 2017), *available at* http://www.cpuc.ca.gov/uploadedfiles/cpuc_public_website/content/about_us/organization/divisions/policy_and_planning/ppd_work/ppd_work_products_(2014_forward)/ppd%20-%20intro%20to%20debt%20equivalency(1).pdf).

385 Widjaja/SDG&E Exh. SDG&E-03 at 27-28.

386 Mekitarian/SDG&E Exh. SDG&E-02 at 15.

387 *Id.* at 13-14.

388 Moody's Investors Service, *Regulated Utilities – US, 2019 Outlook Shifts to Negative Due to Weaker Cash Flows, Continued High Leverage* (June 18, 2018) at 1.

common equity ratio – is necessary to support its credit rating. The credit rating agencies have focused on this issue because, as Ms. Mekitarian pointed out, they assess the financial risk of SDG&E based on its *actual* capital structure rather than its *authorized* capital structure.[389] Thus, to credit rating agencies, SDG&E is effectively at a 56 percent common equity ratio today.

While SDG&E's 56 percent actual equity ratio is viewed positively by credit ratings agencies and has helped to prevent further downgrades, the credit rating agencies are watching closely for a signal from the Commission that it is supportive of SDG&E's financial stability in light of its heightened business risks. The instant proceeding is the Commission's first opportunity since setting the 52 percent equity ratio to revisit it and authorize a higher equity level. As Mr. Folkmann noted, since "this question is at issue in this proceeding, they are paying attention to the risk that, if not authorized, the equity layer could be reduced."[390] In other words, SDG&E's higher-than-authorized equity ratio has been seen as necessary to ensure its financial stability – and also temporary, pending authorization of a higher equity ratio in this proceeding – so Commission rejection of the requested 56 percent equity ratio in this case could create significant negative impacts to SDG&E credit rating.

As Ms. Mekitarian explained, "if the Commission were to approve an equity ratio below the 56 percent that we're currently operating under, it would send a really strong signal to the credit rating agencies that potentially the Commission is not supporting the credit of the company."[391] Ms. Mekitarian notes further that such action by the Commission could be

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389 Mekitarian/SDG&E Exh. SDG&E-08 at 6; *see also* Widjaja/SDG&E Tr. V.4:758-59; O'Donnell/FEA Tr. V.3:367:4-6 (stating that "[w]hat's most important is what is the actual numbers that the company has in its books.").

390 Folkmann/SDG&E Tr. V.5:849:20-23.

391 Mekitarian/SDG&E Tr. V.5:941:14-20.

interpreted by SDG&E's management as not supportive of SDG&E's efforts to manage the business prudently and prevent further downgrades.[392] The possibility that SDG&E would respond to the Commission's direction by lowering its common equity structure and becoming more leveraged as viewed by credit rating agencies,[393] could put further downward pressure on the Company's credit rating.

Moody's, for example, has indicated that SDG&E's current credit rating and outlook of "Baa1" and "positive" *assumes* a "credit supportive" outcome in the instant proceeding. It has indicated that it may downgrade SDG&E further if a 56 percent equity ratio is not approved.

Specifically, in its July 12, 2019 Report, Moody's stated:

> Importantly, the Baa1 rating assumes a credit supportive outcome of SDG&E's ongoing 2019 general rate case *and cost of capital proceeding where the utility requested an increase in its equity layer to 56% (effective January 2020) from currently 52%.* The outcome of these regulatory proceedings will be important for SDG&E's ability to further generate a ratio of CFO pre-W/C to debt that comfortably exceeds 20% on a sustained basis.[394]

Moody's reiterated this point on July 29, cautioning that "[t]he positive outlook assumes . . . credit supportive outcomes of the utility's ongoing regulatory proceedings. These proceedings include its 2019 general rate case and the cost of capital, w[here] a decision [is] anticipated before year-end 2019."[395] Moody's further noted in its "Factors that Could Lead to a Downgrade" discussion that "[d]ownward pressure is also likely if SDG&E records credit metrics that are weaker than currently anticipated for example due to outcomes of pending

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392 *Id.* at 941.

393 Widjaja/SDG&E Tr. V.4:759.

394 Moody's Investors Service, Rating Action: Moody's Affirms San Diego Gas & Electric Company's Ratings; Outlook Remains Negative (July 12, 2019) ("Moody's July 12 Report") at 2.

395 Moody's July 29, 2019 Report at 1.

regulatory proceedings that are not credit supportive."[396] On August 2, Moody's listed "[r]egulatory uncertainty with delayed rate case and pending cost of capital proceedings" as one of SDG&E's top "credit challenges," again listing non-credit supportive outcomes in pending regulatory proceedings as potentially leading to downgrades.[397]

A Commission decision to retain the 52 percent equity ratio would also force the question of whether it is sustainable for equity investors to continue to finance a portion of the business without earning a return on that portion of their investment.[398] Currently, equity investors are earning a return only on the authorized equity layer of 52 percent, rather than the 56 percent SDG&E has been operating under.[399] While, as discussed above, raising the equity ratio to 56 percent was necessary to maintain the financial stability of the Company, it is unlikely that equity investors would look favorably on continuation of this reduction of their return.

Thus, a decision in the instant case to maintain SDG&E's current 52 percent equity layer would send a message that the Commission is not supportive of the actions SDG&E has taken to date to preserve its credit rating. Notably, intervenors admit that their capital structure proposals for SDG&E would alter the Company's current authorized capital structure by increasing the Company's debt-to-equity ratio (*i.e.*, making SDG&E more leveraged).[400] Commission approval of SDG&E's proposed 56 percent equity ratio, on the other hand, "would send a strong signal to credit rating agencies [and] investors in the market that the Commission is supportive of

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[396] Moody's July 29, 2019 Report at 2.

[397] Moody's Aug. 2, 2019 Report, Exh. SDG&E-23-C at 2.

[398] *See* Mekitarian/SDG&E Tr. V.5:944.

[399] *Id.* at 944; Mekitarian/SDG&E Exh. SDG&E-08 at 6-7.

[400] *See, e.g.*, Gorman/EPUC/IS/TURN Tr. V.3:394; O'Donnell/FEA Tr. V.3:366; Griffing/UCAN/POC Tr. V.5:984

SDG&E's strong credit rating."[401] Accordingly, the Commission should authorize SDG&E's continued use of a 56 percent common equity ratio in order to ensure a credit-supportive outcome of this proceeding.

V. EMBEDDED COST OF DEBT AND PREFERRED EQUITY

As Ms. Mekitarian explained, "[t]he embedded cost of debt represents all the costs associated with the issuance and servicing of debt, expressed as a percentage of the net proceeds received from debt issuances."[402] SDG&E's currently-authorized embedded cost of long-term debt is 4.59 percent; this is also SDG&E's forecasted embedded cost of long-term debt.[403] Thus, SDG&E requests no change to its currently-authorized cost of long-term debt. In keeping with past cost of capital proceedings, SDG&E recommends setting the authorized cost of debt equal to the forecasted embedded cost of debt during Test Year 2020.[404]

With regard to preferred equity, Ms. Mekitarian noted that SDG&E no longer relies on preferred stock as a source of financing.[405] She explained that "SDG&E redeemed all issued and outstanding shares of its preferred stock in 2013 and does not anticipate issuing any preferred stock in the foreseeable future, as reflected in its actual capital structure."[406] Accordingly, SDG&E proposes an embedded cost of preferred stock of 0 percent. No intervenor opposes SDG&E's preferred stock proposal.[407]

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[401] *See* Mekitarian/SDG&E Tr. V.5:942:9-12.

[402] Mekitarian/SDG&E Exh. SDG&E-02 at 16.

[403] *Id*.

[404] *Id*. at 17 (reflecting the trading level of SDG&E's most recently issued 30-year bond).

[405] *Id*.

[406] *Id*.

[407] *See* Gorman/EPUC/IS/TURN Tr. Vol. 3 at 394:8-10 (accepting SDG&E's proposal to "modify its use of preferred equity).

VI. COST OF CAPITAL ADJUSTMENT MECHANISM

In D.08-05-035, the Commission adopted a uniform multi-year CCM for SDG&E, SCE and PG&E. The CCM is intended to eliminate the need for utilities to file a cost of capital application on an annual basis; the mechanism allows utilities to file cost of capital applications every three years and provides a means of recalibrating a utility's authorized ROE and ROR if certain market conditions are met in the intervening years.[408]

As discussed in more detail below, SDG&E supports continued reliance on the CCM mechanism – indeed, no party to this proceeding suggests that the CCM should be discontinued – and proposes the following revisions and clarifications to the CCM intended to ensure that the goals underlying adoption of the mechanism are fully achieved:

- Narrow the dead band trigger to 50 basis points from the currently authorized 100 basis points;
- Clarify the method for selection of a CCM benchmark index when the utility has split ratings;
- Clarify the process for filing of a capital structure adjustment application to address a credit rating change between full cost of capital applications; and
- Provide guidance regarding actions to be taken if a utility's credit rating is downgraded to non-investment grade.

A. Operation and Purpose of the CCM

During the three-year period between utilities' cost of capital applications, the CCM operates to establish a deviation range or "dead band" tied to utility bond yields that, if triggered, automatically re-sets the utility's authorized ROE and ROR. The CCM is currently based upon:

- The most recently adopted authorized capital structure and embedded costs for long-term debt and preferred stock;
- The benchmark index as Moody's Utilities Bond Index, based on the utility's credit ratings;

[408] D.08-05-035 at 15-16.

- A benchmark interest rate representing either: (a) the October through September average of the applicable Moody's Utilities Bond Index from the Test Year ("TY") of the most recently adopted Cost of Capital; or (b) the October through September average following a triggering event and corresponding effective date of an automatic adjustment to the authorized Cost of Capital structure;
- A 100-basis point dead band such that within plus or minus 100 basis points from the benchmark interest rate, the mechanism will not trigger; and
- an adjustment ratio of 50 percent (*i.e.*, in the event of a triggering event and corresponding adjustment to ROE, the ROE will be adjusted by half of the difference between Moody's Utility Bond Index and the benchmark interest rate.).[409]

If the dead band is triggered – *i.e.*, if the difference between the current 12-month October through September average Moody's utility bond index rate and the benchmark exceeds 100-basis points – an automatic adjustment to the utility's ROE and updating of the embedded costs of long-term debt and preferred stock is made through an October 15 advice letter to become effective on January 1 of the following year.[410] Once triggered, the CCM would continue to operate with a revised benchmark interest rate equal to the 12-month (October to September) average interest rate that caused the CCM to trigger.[411] Authorized capital structure is not adjusted through the CCM; however, a utility may file a cost of capital application outside of the CCM process if certain conditions are met.[412]

The Commission explained in its decision adopting the CCM that the mechanism "balances the interests of [utility] shareholders and ratepayers while simplifying and reducing

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[409] D.13-03-015 at Appendix A, pp. 3-4.

[410] D.08-05-035 at 15.

[411] *Id*. at 16.

[412] *Id*.

ROE proceedings, workload requirements, and regulatory costs."[413] It detailed the material benefits conferred by the CCM:

> This CCM streamlines the major energy utilities' cost of capital process while providing greater predictability of the utilities' cost of capital by eliminating the use of interest rate forecasts and disputes concerning interest rate levels and trends, as well as uncertainties associated with conflicting perceptions of financial markets and the return requirements of investors. The CCM also enables the utilities, interested parties, and Commission staff to reduce and reallocate their respective workload requirements for litigating annual cost of capital proceedings.[414]

The CCM is viewed positively by market participants and regulatory stakeholders. As Mr. MacNeil observed, "[c]redit rating agencies and banks – who regularly evaluate the financial condition of the utilities – have indicated their preference for the automatic rate-setting mechanism, since it provides greater clarity and transparency in understanding changes to a utility's ROE compared to the uncertainty of trying to predict litigation outcomes. This in turn promotes a degree of desired stability."[415]

B. Proposed Modification of Dead Band

In order to protect the interests of both ratepayers and equity investors,[416] the Commission should modify the current CCM dead band to ensure that it operates as intended. Specifically, the Commission should re-set the dead band trigger to 50 basis points from the currently authorized 100 basis points.

There are several objectives underlying the CCM that must be considered in evaluating the appropriate dead band:

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[413] *Id*. at 5.

[414] *Id*. at 16.

[415] MacNeil/SDG&E Exh. SDG&E-06 at 3.

[416] *See* D.08-05-035 at 5.

- reduce the time and costs associated with filing and litigating Cost of Capital proposals annually;
- produce objective results through readily available historical rates that eliminate the need for interest rate forecasts (and related forecasting risk);
- represent a simple, transparent, and non-controversial adjustment mechanism (*i.e.*, automatic adjustment rather than adjustment by litigated outcome);
- limit frequent or abrupt changes, while remaining sensitive enough to trigger when fluctuations in the bond markets necessitate an adjustment; and
- provide timely ratemaking information to stakeholders and the financial markets.[417]

As a practical matter, the CCM will successfully achieve these objectives only if it includes a dead band that is sufficiently responsive to market changes. The Commission has made clear that a dead band that fails to trigger in order to protect ratepayers and shareholders is problematic, noting that "[a] deadband that is overly sensitive to interest rates cause needless volatility in revenues and rates. *Conversely, a deadband that never triggers can impose unnecessary costs on shareholders or ratepayers, depending on which direction interest rates move*."[418] Thus, to be effective, the dead band must be set to achieve *both* of the aims described in D.08-05-035 – *i.e.*, it must provide a reasonable level of stability, while being sensitive enough that it can serve its intended purpose of adjusting the ROE/ROR when necessary to achieve the objectives articulated by the Commission. As Mr. MacNeil pointed out, "[a] CCM that never triggers or does so only very rarely is tantamount to having no CCM at all."[419]

SDG&E's proposed 50-basis point dead band would improve the sensitivity of the CCM without a material reduction in stability. For example, analysis of data from 2001 to the present

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[417] MacNeil/SDG&E Exh. SDG&E-06 at 2.

[418] D.08-05-035 at 11 (emphasis added).

[419] MacNeil/SDG&E Exh. SDG&E-10 at 3-4.

establishes that a 50-basis point dead band on the Moody's A Utilities Bond Index would have triggered a total of five times during that period.[420] A 50-basis point dead band on the Moody's Baa Utilities bonds index would have triggered a total of eight times during the same period.[421] It is worth noting that in all cases but one, the triggers during the relevant period would have been downward, thereby benefitting ratepayers.[422]

Over the same period, the current 100-basis point dead band would have triggered only three times for the Moody's A Utilities Bond index and three times for the Moody's Baa Utilities Bond index.[423] The additional trigger events that would have occurred under the 50-basis point dead band versus the 100-basis point dead band were *downward* triggers that would have led to a reduction in ROE benefitting ratepayers.[424] This illustrates the point that a 50-point dead band would achieve the Commission's objective of protecting *both* ratepayers and utility shareholders.[425] In addition, that "the proposed 50% adjustment ratio of a 50 basis point dead band allows for a smaller adjustment should a trigger event occur, thereby reducing ROE volatility as the result of triggering of the CCM and preserving stability."[426]

Although PAO opposes modifying the CCM mechanism, they do not provide any analysis as to why the Commission should maintain the CCAM as-is without changes.[427] Thus,

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420 MacNeil/SDG&E Exh. SDG&E-06 at 8.

421 *Id*.

422 *Id*.

423 *Id*.

424 *Id*.

425 *See* D.08-05-035 at 5.

426 MacNeil/SDG&E Exh. SDG&E-10 at 4.

427 Kjensli/PAO-09, Exh. PAO-09 at 4.

the Commission should narrow the current dead band to 50 basis points in order to ensure that it aligns with the Commission's intent to avoid a dead band that is insufficiently responsive.[428]

C. Proposed CCM Clarifications

SDG&E requests that the Commission adopt the following proposals intended to clarify certain aspects of the current CCM:

- The selection of a CCM benchmark index when the utility has split ratings;
- Clarify the process for filing of a capital structure adjustment application between full cost of capital applications; and
- Guidance for utilities with non-investment grade ratings

The proposed clarifications "simply seek more explicit guidance on how the CCM should be understood by the Commission and all stakeholders. Such direction is necessary to avoid after-the-fact questions and later requests for clarification."[429]

1. Clarification Regarding Split Credit Ratings Index Selection

The CCM index to be applied in a given instance should be determined based upon the credit ratings of the relevant utility. In the event of split ratings[430] where the agencies' credit ratings are set at different levels, SDG&E proposes that the lowest rating be used to determine the applicable index for the CCM. As Mr. MacNeil explained, "this is appropriate because the lowest credit rating of the three credit rating agencies is known by the financial markets and is therefore reflected in competitive pricing of financial instruments."[431]

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428 *See* D.08-05-035 at 11.

429 MacNeil/SDG&E Exh. SDG&E-10 at 5.

430 MacNeil/SDG&E Exh. SDG&E-06 at Appendix A, which provides an illustration of split ratings.

431 *Id*. at 12.

2. Clarification Regarding Ratings Change During CCM Years

In D.08-05-035, the Commission directed that the CCM include a provision that enables the utilities to file an application to adjust their capital structure during the period between full cost of capital applications:

> Authorized capital structures should continue to be recalibrated in full cost of capital proceedings. However, while there will be a three-year interval between full cost of capital applications, we recognize that changes in credit ratings may require an adjustment to the utilities' capital structure within that time period. *Hence, a provision should be included in the CCM for utilities to file a capital structure adjustment application that addresses ratepayer impacts within that time period*.[432]

Given this express Commission direction, the process for submitting a capital structure adjustment application should be clarified. SDG&E proposes adoption of the following process:

- A ratings change (upgrade or downgrade) that occurs over the October through September CCM measurement period of any year that affects the applicable Moody's Utilities Bond Index for the CCM would allow for the utility to update the applicable Moody's Utilities Bond Index for the following year;
- The applicable Moody's Utilities Bond Index is based on the company's ratings as of September 30 of that ratings change year;
- The benchmark rate resets based on the 12-month average of the Moody's Utilities Bond Index for the period of October 1 through September 30 preceding the change; and
- Any rating change update will be made through filing an advice letter in October of the ratings change year to implement the revised index and benchmark rate for the CCM, to be effective in the following CCM measurement period.[433]

3. Guidance Regarding Downgrade to Non-Investment Grade Rating

Given the risk of downgrade to non-investment grade status currently faced by SDG&E and other California utilities, SDG&E requests clarification and guidance regarding the actions

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[432] D.08-05-035 at 8 (emphasis added).

[433] MacNeil/SDG&E Exh. SDG&E-06 at 12-13.

to be taken in the event of a downgrade to below investment grade. SDG&E proposes that such a downgrade event trigger the use of a "Modified CCM"[434] whereby:

- The traditional CCM utility bond index trigger is suspended;
- The authorized ROE remains in place and the authorized capital structure is not adjusted. But a utility would retain the currently authorized option to adjust its capital structure via a separate application related to the change in credit rating;
- The costs of long-term debt and preferred stock would be updated to reflect the actual August month-end embedded costs, forecasted interest rates for variable long-term debt and new long-term debt and preferred stock schedule to be issued;
- A Tier 2 advice letter would be filed in October of the downgrade year, to be effective January 1 of the following year;
- Beginning the year immediately following the initial downgrade year, the costs of long-term debt and preferred stock would continue to be trued up annually in the same manner as in the downgrade year, until the first of: (1) the next full Cost of Capital proceeding; or (2) an upgrade of credit ratings back to investment grade;
- An upgrade from non-investment grade to investment grade would trigger the re-instatement of the traditional CCM. The annual cost of debt and preferred stock true up would cease; and
- Such an upgrade would not trigger an automated ROE adjustment. Instead, it would set the applicable CCM index and benchmark rate, with the 12-month October through September average Moody's utility bond rates of that upgrade year becoming the new benchmark.[435]

VII. CONCLUSION

For the reasons set forth above, the Commission should authorize: (i) an ROE of 12.38 percent for SDG&E's electric and gas distribution operations; (ii) a cost of long-term debt of 4.59 percent and a proposed cost of preferred stock of zero percent; (iii) a capital structure for SDG&E's CPUC-jurisdictional ratebase of 56 percent common equity, 44 percent long-term debt and zero percent preferred stock; (iv) an overall ROR of 8.95 percent for TY 2020; (v) the

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[434] *Id*. at Appendix D, which contains additional analysis of the proposed Modified CCM.

[435] *Id*. at 13-14.

modification and clarifications to the existing CCM proposed herein; and (vi) all other relief that is reasonable and necessary. SDG&E reserves the right to request oral argument.

Respectfully submitted,

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